Policy *2520.2B*: *West Virginia College- and Career-Readiness Standards for Mathematics*
Comment Log
November 16, 2015 to December 14, 2015

Action	Type
N: No Response	- Negative
NA: Not Accepted	+ Positive
A: Accepted	o Neutral

DATE	INDIVIDUAL ORGANIZATION	COMMENTS	ACTION/ TYPE	RATIONALE
§126-44BB-1 General				
11-14	Shelly Spec Ed teacher Berkeley county board of Ed Martinsburg We	As a teacher I an disappointed in my own child's education they received. They were not prepared for college. I feel the standards are too broad and hard to understand.	N/-	
11-16	Phyllis Myers Retired Ronceverte Wv	I feel all the standards are reasonable expectations for students to master while in school.	N/+	
11-16	Phyllis Myers Retired Ronceverte Wv	I feel all the standards are reasonable expectations for students to master while in school.	N/+	
11-16	Janie Merendino Elementary Curriculum Specialist Harrison County Schools	I just finished reviewing K-5 math standards and I am thrilled with the version! How long have I been referring to developing mathematical Habits of Mind with our WV elementary students? I know it has been ever since I started teaching and kept referring to the NCTM Process Standards that teachers were not aware of! Maybe now with this version we can get to where we need to be. I love the opening introduction with	N/+	

		reference to how using a mnemonic devise " to do" math does not mean the child " knows math". I like the BIG IDEA chart for each grade. My only thought for a change would be to include the words " when multiplying ...." to 3rd grade in section NOBT and " when dividing" to 4th grade NOBT. Here is where I struggle with teachers- getting them away from teaching that standard algorithm right off the bat in 3rd grade when they introduce 2 digit times one digit multiplication and use of that standard algorithm when intro division with a 3 digit dividend !		
11-17	Nancy Maze Teacher Math2 Pleasants Co. St.Marys Wv	I see no difference between NexGen and Career College Readiness standards other than the numbering.	N/o	Rationale 1: The standards reflect revisions recommended through the Academic Spotlight process.
11-18	Richard Burdiss Teacher Parkersburg South High School Parkersburg wv	We should do away with the state tests at the high school level and replace it with the ACT or SAT. These tests are valid, reliable, and already have been given for many years. They also are a great predictor of success in college.	N/o	Rationale 2: Suggestion is not applicable to this policy.
11-18	Anita Jarrett Teacher NCBOE Summersville WV	ALL STANDARDS These are just the Common Core standards with a new title and number. Why are they not okay being called the Common Core, but West Virginia College- and Career- Readiness is acceptable when THEY ARE THE SAME STANDARDS!!! I thought we had solid reasons as to why the Common Core Standards were not going to meet our ever-changing needs and wants. How is changing the name going to resolve those issues? Are there not copyright issues going on here? Don't get me wrong, I am okay with these Standards, it is just there	N/o	See Rationale 1.

		are too many conflicting stories going on. We would hold our students accountable for just changing the name on someone else's paper and accepting it as their own. This does not abode well.		
11-17	Terri Walker 8th Grade Math Teacher Monroe County	I am an 8th grade math teacher in Monroe County and was thrilled to hear the plan to repeal the Common Core Math Standards! Many of the standards are what I taught when I was teaching at the high school level and are way above the ability of the "Normal" hard working 8th grade student, much less the special ed students I have. I may be mistaken and truly hope I am, however in reading the 8th grade standards in policy 2520.2B there were absolutely NO CHANGES with the exception of the standard number. The wording is exactly the same. How does this "repeal" help me and my students? I have been teaching math for 25 years and consider myself to have very high standards and expectations but these standards are unrealistic for an 8th grade student. Am I wrong about the 8th grade math standards being the same with exception of the standard number? Please advise.	N/-	See Rationale 1.
11-20	David Delk Wheeling WV	Headlines across the State of West Virginia on November 13, 2015 declared that the State Board of Education and State Superintendent Dr. Michael Martirano had recommended a repeal of the stateâ€™s Next Generation/Common Core academic standards in English and Math to be replaced with the College and Career Readiness Standards. These headlines got it half right. Dr. Martirano has proposed eliminating the Next Generations Standards, but nothing about Common Core is being eliminated.	N/-	See Rationale 1.

		In a carefully worded press release, the West Virginia Department of Educations (WVDE) made no mention of Common Core but did strongly assert that the College and Career Readiness standards are â€œnew standards.â€• This assertion is just plain false. I hope many parents will find it interesting and informative that every single Common Core standard in the soon to be repealed Next Generation standards appear in the College and Career Readiness standards. It should also be instructive and enlightening to parents that neither the WVDE, Dr. Martirano nor the State Board felt it important to mention the fact that the Common Core standards would remain in effect. It is disappointing that the WVDE cannot be honest with parents and just admit that the College and Career Readiness standards are Common Core 2.0. What is new in the College and Career Readiness standards is the insertion of cursive writing instruction in grades 2-3, explicit mention for students to learn multiplication tables by the end of grade 3, and the addition of standards specific to Calculus with the expectation of Calculus being available to all students. Please just reflect on the fact that the actual â€œrigorousâ€• Common Core standards have no provision for learning cursive, the times tables or were advanced enough to include Calculus standards. These are indeed welcomed additions, but the College and Career Readiness standards still are just a re-branding and re-naming of Common Core.		

		I am sure skeptics will say that they saw on the news that Common Core in West Virginia was being repealed, and surely the WVDE would not misrepresent such a decision. The most telling evidence that Common Core will remain in place with these â€œnewâ€• standards is that the same Common Core standardized testing will be given to our students. West Virginia is part of the Smarter Balanced Assessment Consortium (SBAC) along with eighteen other states, according to its website. These standardized tests, according to the testing company American Institutes for Research, are specifically designed and created to measure student progress on only Common Core standards. If the College and Career Readiness standards were truly a departure from Common Core, the SBAC test would in no way align with the new standards. However, the WVDE press release on a reduction of standardized testing makes no mention of revisions to the SBAC. The reason that the SBAC test remains unchanged is that any comparison of the â€œnewâ€□ standards with the â€œoldâ€□ standards, whether that comparison is cursory or comprehensive, demonstrates that all the Common Core standards are repeated almost word for word in every instance from old to new. P.T. Barnum is credited with saying â€œthereâ€™s a sucker born every minute.â€• The WVDE is showing the same regard for the parents of West Virginia with the College and Career Readiness standards. Dr.	N/-	Town hall meetings were held across the state as part of the Academic Spotlight process to allow all

		Martirano and the WVDE should be forthright with the public about what it is actually doing. My hope is the West Virginia Legislature will do its due diligence on Common Core 2.0 and not just accept the WVDEâ€™s re-branding of the Next Generation standards at face value. It is one thing to have a legitimate disagreement and debate about state education standards. It is another thing for government officials to engage in deceptive practices to implement education policy. Our children deserve better.		stakeholders a voice.
11-24	tony nichols Federal Programs Nicholas County Summersville WV	Why are we renaming Mathematical Practices to Habits of Mind? This will cause confusion. Is this not plagiarism? The re-numbering and reformatting is not going to match numbers aligned to new instructional materials already purchased, nor will it assist teachers in finding supplemental materials already aligned. I think it is going to be more unfriendly for teachers to use the new numbers. They will have to go back and redo curriculum maps, etc. Where are the performance descriptors?	N/-	The Mathematical Habits of Mind in this policy like the Mathematical Practices are both based on National Council of Teachers of Mathematics' Process Standards. Rationale 3: The new numbering serves to align the format for all content standards. Rational 4: The performance descriptors have been replaced with skill progression charts at the beginning of each grade level or course.
11-30	Tega McGuffin Teacher	Content is grade and developmentally appropriate; Vertical progressions along different grade levels are	N/+	

	Fayette County Schools Oak Hill WV	evident; Gaps in operations and fractions have been addressed and clarified; Calculus standards have been added for uniformity; Transition math for seniors standards focus on problem solving and real world accountability; Standards for the traditional pathway and the newer pathway (Math I-IV) are provided; Addition of STEM readiness standards; Addition of multiplication tables in 3rd grade.		
12-01	Marcia Manley Ms. Nitro High School Nitro WV	The "new" CSO's are only negligibly different from the NexGen CSO's. We can label the CSO's "Algebra I," "Geometry," etc., giving the illusion of returning to CSO's for those classes from years ago, but the weaknesses of the NexGen CSO's still exist, and students remain harmed by the unreasonable expectations.	N/-	See Rationale 1. Rationale 5: The standards allow for students to reach the college- and career-readiness benchmarks. The topics of Algebra, Geometry, Trigonometry, etc. can be addressed traditionally or integrated. Students will receive the same exposure to all standards through either pathway. Students have a variety of choices to align their fourth mathematics credit and any additional electives they choose to their post-secondary goals.
12-02	Tracey Taylor Keyser WV	Am I the only one that sees these as being the same standards, at least for 5th grade, except you took the NxGen title off of them? The standards for 5th grade are the same ones I have been teaching now for 3 years!	N/o	See Rationale 1.
12-03	Jamie McPeak	On this Board of education on math I believe that they	N/o	Developing numeracy in the

	Student WVNCC Bridegport Ohio	should keep it traditional way, but with some new things. I believe that they should kind of recognize adding and subtracting in kindergarten. Being able to try to write the numbers 0-20. I also believe they should recognize the shapes. I don't believe that kindergarten should be able to describe and compare objects as longer, shorter, larger, smaller, etc. Classify objects and count the number of objects in each category. Sort and classify pennies into groups of 5s or 10s. I believe that it's to much for them to do yet. There's also kids with learning disabilities I think that it would be kind of difficult for them to have to know all this stuff too. I know there's special classes for these students, but those don't usually start till later. There's also kids that are kind of slow at learning these stuff. It would be difficult to do all these math things. I believe that these kindergarten kids should be able to play and have fun, but they're learning at the same time. They need to learn by doing fun experience or being doing math with fun activities.		foundational years is of extreme importance. Students in kindergarten should be counting objects, focusing on cardinality, and grouping, one-to-correspondence is an age appropriate concept at this time. The concept of money is something that should be introduced after a firm foundation is established in counting objects with a one-to-one correspondence. Curriculum decisions are made at the local level.
12-08	Monique Bucklen special education teacher Nitro High School Charleston WV	The standards for Algebra, Geometry and Algebra 2 have not changed, the only differences are the naming and rewording of common core standards.	N/o	See Rationale 5.
12-08	Ryne Eich Math Teacher Nitro High School Nitro WV	The standards for Algebra 1, Geometry, and Algebra 2 have not changed. The only differences are the naming and rewording of common core standards. If the intention is for all students to be college and career ready, then there should be an appropriate	N/-	See Rationale 5.

		pathway ascertained when the student is in middle school or early high school, so that the math courses can reflect the career goals determined by the parent and students. This means that not all students should be required to enroll in same math courses in order to receive a high school diploma. Therefore all students are not the same and should not be in the same cookie cutter courses. Students mature cognitively at different rates and this pathway does not allow for diversity of instructions and assumes all students are the same based on grade level. For example there are 61 Algebra 1 standards. The pace required to teach all standards is too intensive to be covered in the 180 school days if mastery is the expectation. There is no time built in for reteaching,remediation, and testing.		
12-09	WVNCC Student Student WVNCC New Martinsville WV	I am satisfied with the repeal of the Common Core teachings. I think it will be beneficial for the teachers to choose their own class materials and plan their own curriculum. I think that tailoring courses to individual student needs will not only help successfully educate more kids, but will take away any unfair expectations and level the playing field for children who learn in different ways.	N/+	
12-10	Susan Teacher Begunich Morgantown WV	Defines delivery system, assessment and accountability system	N/o	See Rationale 2.
12-10	Rhonda Jelich	The language in the standards is clear and concise.	N/+	

	Director of Elem Ed & Staff Dev Jackson County Schools Ripley WV	Much easier for teachers and parents to understand. The presentation better meets the community's needs. The third grade standard that states that students must learn their multiplication tables is just one example. The standard was always present, but only an educator understood that it was present. Changes are good for all!		
12-14	Andy Bird Hurricane WV	Content is grade and developmentally appropriate; Vertical progressions along different grade levels are evident; Gaps in operations and fractions have been addressed and clarified; Calculus standards have been added for uniformity; Transition math for seniors standards focus on problem solving and real world accountability; Standards for the traditional pathway and the newer pathway (Math I-IV) are provided; Addition of STEM readiness standards; Addition of multiplication tables in 3rd grade	N/+	
12-14	Anita Jarrett Teacher NCBOE Summersville WV	The standards also needs a return back to the basics. Students are coming into middle school without knowing basic computation and facts. Let us remember Piaget please. Students go through particular stages and I believe we are trying to push students beyond what their mind truly is capable of at any given moment. I am not saying not to push students, that for sure needs done. But the work and standards we have should be developmentally appropriate and as of right now, many are not. I believe we need to start putting more faith in teachers ability to teach and not so much on a curriculum made by people who do not understand education. Let us use the curriculum as a tool, not as a lead. We also need to get back to using manipulatives to help explain concepts. In addition, there is a lot of	N/-	Rationale 6: The West Virginia College- and Career-Readiness Standards include a purposeful progression of skills. This progression develops a strong foundation upon which students build as they advance to higher grade levels. The learning progressions provide scaffolding so that students establish foundational skills in the lower grade levels and build upon those skills with more complex expectations

		validity into using worksheets with several of the same type of problems on it. If we know anything about our brains, it is our brain automatically uses patterns to categorize everything, patterns are found in nature. For these reasons we need to use patterns, doing the same type of problem over and over to help make connections!!!		as they advance to higher grade levels. Teachers develop curriculum and modify how they teach and scaffold the materials they use based upon the needs of individual students.
12-14	Deborah Bever Director Ritchie County Schools Harrisville WV	I find the proposed changes to be very user friendly and much easier to understand.	N/+	
§126-44BB-2 Purpose				
11-14	Shelly Spec Ed teacher Berkeley county board of Ed Martinsburg We	The purpose of changing standards to prepare our kchildren for their future. WV is not prepared wrong our students for their future and we need to take a close look at what and how curriculum is being taught. The standards now do not allow creativity in the classroom and are created in a way that we are teaching students like robots. Students do it want to come to school and are not enjoying school.	N/-	See Rationale 6.
11-24	tony nichols Federal Programs Nicholas County Summersville WV	The standards in this new numbering format may read easier for parents, but the intent for deep understanding and depth of knowledge may be sacrificed. Will teachers use them as "check off" system and simply "cover" material as opposed to going deep? Are we going back to more content and less understanding?	N/-	See Rationale 3.
12-08	Monique Bucklen special education teacher	If the intention is for all students to be college and career ready, then there should be an appropriate pathway ascertained when the student is in middle	N/-	See Rationale 1 and 5.

	Nitro High School Charleston WV	school or early high school so that the math courses can reflect the career goals determined by the parent and student. This means that not all students should be required to enroll in the same math courses in order to receive a high school diploma. Math courses should be reflective of the career aspirations, diversity of abilities and individual talents of students.		
12-08	Ryne Eich Math Teacher Nitro High School Nitro WV	The standards for Algebra 1, Geometry, and Algebra 2 have not changed. The only differences are the naming and rewording of common core standards. If the intention is for all students to be college and career ready, then there should be an appropriate pathway ascertained when the student is in middle school or early high school, so that the math courses can reflect the career goals determined by the parent and students. This means that not all students should be required to enroll in same math courses in order to receive a high school diploma. Therefore all students are not the same and should not be in the same cookie cutter courses. Students mature cognitively at different rates and this pathway does not allow for diversity of instructions and assumes all students are the same based on grade level. For example there are 61 Algebra 1 standards. The pace required to teach all standards is too intensive to be covered in the 180 school days if mastery is the expectation. There is no time built in for reteaching,remediation, and testing.	N/-	See Rationale 1, 5 and 6.

12-10	Susan Teacher Begunich Morgantown WV	Defines Content Standards	N/o	Page 3 defines standards as "expectations for what students should know, understand and be able to do; standards represent educational goals."
§126-44BB-3 Incorporated by Reference				
12-08	Monique Bucklen special education teacher Nitro High School Charleston WV	Students mature cognitively at different rates and this pathway does not allow for differentiation and assumes that all students are the same based on grade level. The expectations		See Rationale 6.
12-08	Ryne Eich Math Teacher Nitro High School Nitro WV	The standards for Algebra 1, Geometry, and Algebra 2 have not changed. The only differences are the naming and rewording of common core standards. If the intention is for all students to be college and career ready, then there should be an appropriate pathway ascertained when the student is in middle school or early high school, so that the math courses can reflect the career goals determined by the parent and students. This means that not all students should be required to enroll in same math courses in order to receive a high school diploma. Therefore all students are not the same and should not be in the same cookie cutter courses. Students mature cognitively at different rates and this pathway does not allow for diversity of instructions and assumes all students are the same based on grade level.	N/-	See Rationale 1, 5 and 6.

		For example there are 61 Algebra 1 standards. The pace required to teach all standards is too intensive to be covered in the 180 school days if mastery is the expectation. There is no time built in for reteaching,remediation, and testing.		
12-10	Susan Teacher Begunich Morgantown WV	Copies obtained from Sec. of the State	N/o	
§126-44BB-4 Summary of the Content Standards				
11-14	Shelly Spec Ed teacher Berkeley county board of Ed Martinsburg We	The current standards are too vague and the proposed standards seem easy to understand, but there still seems like a lot to teach in one school year.	N/o	See Rationale 6.
11-16	Phyllis Myers Retired Ronceverte Wv	M37 is of great concern. Math facts memorized for speed reminds me of the Multiplication drills my children endured, and never fully understood what multiplication really meant. My kids were good students, but weren't fluent in math. I would rather see fluency than speed. Doesn't it make sense to know something well rather than to bark out an answer and not know why?	NA/-	This standard allows teachers to select multiple strategies and does not require drill and practice. Curriculum decisions are made at the local level.
11-18	Richard Burdiss Teacher Parkersburg South High School Parkersburg wv	The new standards are easier to interpret and implement. But my opinion is we should go back to the Algebra, Geometry, Algebra II, Trigonometry, and Pre-Calculus. Compressing five subjects into three or four years is not sound teaching methods. We should also have a low level math class such as Business math or consumer math since everyone does not go to college.	N/o	This policy allows counties to choose between traditional and integrated pathways.
11-24	tony nichols	Educational standards should be written and developed	N/-	

	Federal Programs Nicholas County Summersville WV	by educational professionals not legislative agendas. The standards we have currently are good. We just need more professional development for teachers and better platforms for parent outreach. These "new" standards are a little clearer, but may be sacrificing the intent of deep understanding.		
11-30	Tega McGuffin Teacher Fayette County Schools Oak Hill WV	Standards are clear, more precise and user-friendly with a stream-lined organization based off of a clustering system.	N/+	
12-08	kirby asbury math teacher nitro high nitro wv	The standards for Algebra, geometry, and algebra 2 have not changed. The only differences are the naming and rewording of common core standards. If the intention is for all students to be college and career ready then there should be an appropriate pathway ascertained when the student is in middle school or early high school so that the math courses can reflect the career goals determined by the parent and student. This means that all students should be required to enroll in the same math courses in order to receive a high school diploma. Students mature cognitively at different rates and this pathway does not allow for diversity of instruction. All students are not the same.	N/-	See Rationale 5 and 6.
12-08	Monique Bucklen special education teacher Nitro High School Charleston WV	There are 61 Algebra 1 standards. The pace required to teach all standards is too intensive to be covered in the 180 school days if mastery is the expectation. There is no time built in for reteaching and remediation or testing.	N/-	See Rationale 5 and 6.

		The standards do not provide an appropriate track for special education, average or below average students. The upper level students are also slighted because content previously taught in 6 courses has been condensed to 3 courses. The standards for Algebra, Geometry and Algebra 2 have not changed, the only differences are the naming and rewording of common core standards. If the intention is for all students to be college and career ready, then there should be an appropriate pathway ascertained when the student is in middle school or early high school so that the math courses can reflect the career goals determined by the parent and student. This means that not all students should be required to enroll in the same math courses in order to receive a high school diploma. Math courses should be reflective of the career aspirations, diversity of abilities and individual talents of students. Students mature cognitively at different rates and this pathway does not allow for differentiation and assumes that all students are the same based on grade level. The expectations may cause greater student apathy and drop out rate. Special education students will be overwhelmed and less likely to graduate. There are 61 Algebra 1 standards. The pace required to teach all standards is too intensive to be covered in the 180 school days if mastery is the expectation. There is no time built in for reteaching and remediation or testing.		
12-08	Ryne Eich Math Teacher Nitro High School	The standards for Algebra 1, Geometry, and Algebra 2 have not changed. The only differences are the naming and rewording of common core standards.	N/-	See Rationale 1, 5 and 6.

	Nitro WV	If the intention is for all students to be college and career ready, then there should be an appropriate pathway ascertained when the student is in middle school or early high school, so that the math courses can reflect the career goals determined by the parent and students. This means that not all students should be required to enroll in same math courses in order to receive a high school diploma. Therefore all students are not the same and should not be in the same cookie cutter courses. Students mature cognitively at different rates and this pathway does not allow for diversity of instructions and assumes all students are the same based on grade level. For example there are 61 Algebra 1 standards. The pace required to teach all standards is too intensive to be covered in the 180 school days if mastery is the expectation. There is no time built in for reteaching,remediation, and testing.		
12-08	Erin Petry Nitro High School Nitro WV	The standards for algebra, geometry and algebra 2 have not really changed the only differences are naming and rewording of Common Core Standards. If the intention is for all students to be college and career ready then there should be an appropriate pathway ascertained when the student is in middle school or early high school so that the math courses can reflect the career goals determined by the parent and student. This means that not all students should be	N/-	See Rationale 1, 5 and 6.

		required to enroll in the same math courses in order to receive a high school diploma.The does not allow for the diversity of goals, aspirations, and individual talents of individual students. Therefore they should not all be in the same cookie cutter classes.Career ready for engineering is different than career ready for graphic design or marketing. Students mature cognitively at different rates. A single pathway does not allow for any diversity of instruction. It assumes that all students are the same based solely on grade level. For example, There are 61 Algebra 1 standards. The pace required to cover all standards is too intensive to be covered in a 180 day school year if mastery is the expectation. There is no time built in for reteaching or differentiation.		
12-10	Susan Teacher Begunich Morgantown WV	Provides focus for teachers.	N/o	
12-14	Andy Bird Hurricane WV	Standards are clear, more precise and user-friendly with a stream-lined organization based off of a clustering system.	N/+	
12-14	Amanda Shelton Teacher, local union president CCMS, AFT-Clay Clay WV	I have read the math standards from K-8 and skimmed the high school pathways. I was a part of the Academic Spotlight and find these standards better than any I have seen in my 16 years experience. Those legislators that want more revision based on more successful states need to realize that 44 (?) other states are using the same	N/+	

		standards (maybe a few adjectives and examples are different. Consideration also needs to be given to the types of communities that make up our state compared to other more successful ones.		
§126-44BB-5 Severability				
11-14	Shelly Spec Ed teacher Berkeley county board of Ed Martinsburg We	Teachers are not enjoying their job and are leaving the profession because it has become more like a factory job. Teachers can not allow flexibly in the classes. Lessons are not being taught to the depth of knowledge that is required. The curriculum is a mile wide and an inch deep. Rather than a mile deep and an inch wide. There are too many things to be taught each year and stud eye are not retaIning information. Other countries are ahead of us because they do not take on so many standards a school year.	N/-	See Rationale 6.
12-10	Susan Teacher Begunich Morgantown WV	circumstances held invalid	N/o	
12-14	Amanda Shelton Teacher, local union president CCMS, AFT-Clay Clay WV	I am concerned that a precedence is being set with our state lawmakers. Will they consider revising standards every election cycle and put our school system through this waste of time every two years?	N/-	
§West Virginia College- and Career-Readiness Standards for Mathematics Please identify standard prior to comments				
11-14	Nathan Boron St Marys wv	I am not the most educated of everyone within the State. I do have two AAS degrees, work as a chemical operator, and own my own business. All these things can be directly linked to the things I have learned starting as early as 5 yrs of age. I have 3 sons that have adapted to the common core values of frankly which I	N/-	See Rationale 2.

		still do not understand. I have been into meeting after meeting with teachers to explain to me my kids test scores are low but yet they can maintain straight A and a occasion B on the report card. Even to the point my middle son the school was convinced had a learner my disability of which he was tested for to find out what I told them was accurate. Every child learns differently and the teacher should have the ability to teach to the way they learn		
11-14	Robin Daquilante Tyler County Schools Middlebourne West	In Grade 3, Number and Operations, Fractions: the word should be "whole" not "while"	A/o	Typographical error was corrected.
11-14	jessica steele ballard wv	The common core standard is a joke! That statement is proven! I will be pulling my children out of school to home school if this type of standard or any other similar to it continues to be taught in school. The method of common core has confused my children to where they have trouble doing traditional math. All my kids are straight A students. I had to teach them cursive writing myself so they can function in the real world later in life. This common core standard has truly dumbed down our children and confused them. I don't care how much it cost to switch textbooks, but it needs to be done no matter what or i know of a few kids in my area that won't be attending public school. Trust me, I'm not the only parent that feels this way! That would mean less federal money for the school!	N/-	
11-14	Lisa Syner Teacher Kanawha County Schools	M.2.21 Second Grade Measurement Standard; I have taught 2nd grade for many years and have a concern that identifying coins and their values is not addressed in the Kindergarten Standards for First Grade Standards;	A/-	Changes have been made to the policy that allow the identification of coins in kindergarten and recognition

	Charleston WV	According to the Common Core Standards and new proposed College and Career Readiness Standards, the first mention of money is in Second Grade. That means that students will have to learn to identify, count like coins, count coin combinations, identify bills, count like bills, count bill combinations, count coin and bill combinations and solve word problems using all of those skills in one grade. It would be more beneficial to expect the students to identify coins in Kindergarten, count by like coins in First Grade and then let Second Grade build upon that knowledge to combine coins together, adding bills when they are ready. Students cannot solve word problems involving money (which is the goal) unless they have gone through all of the steps to learn how to count money. Those skills should be spread over the Primary Grades and begin in Kindergarten.		the value of pennies, nickels, and dimes in grade 1. The concept of money is also reinforced through social studies standards in grades k-2.
11-14	Deborah Turner Petersburg WEST	After viewing the "new" standards it is evident that minimal changes were made to the math standards. I can only see where one standard was added! Disappointing. It appears that there are minimal changes being made. The name has changed but not the standards!	N/-	See Rationale 1.
11-16	Autumn Lee Technology and Curriculum Specialist Greenbrier County Schools Lewisburg WV	This comment is for all standards. Teachers, students and parents are just now becoming familiar and comfortable with our current standards. Changing them only signals to the public that we made a mistake adopting the NXG standards in the first place. With many areas having such a shortage of teachers or quality teachers, this will only escalate the problem with frustration. We need to stick with what we started and see it through for the benefit of our students.	N/-	See Rationale 1.

11-16	Janie Merendino Elementary Math Curriculum Specialist Harrison County Schools Clarksburg WV	Thank you for this revision to standards. I have been trying to get teachers to understand developing Mathematical Habits of Mind with students ever since the NCTM Process Standards came out. These College and career standards put this front and center. The chart of Big ideas per grade level is a good tool for teachers to help them organize their lessons. This format is easy to read as well.	N/+	
11-16	Phyllis Myers Retired Ronceverte Wv	M.3.7. Change the word from speed to fluent. Children should fluently multiply from understanding and memory one digit multiplication problems.	NA/o	This standard allows teachers to select multiple strategies and does not require drill and practice. Curriculum decisions are made at the local level.
11-16	Phyllis Myers Retired Ronceverte Wv	M.3.7. Change the word from speed to fluent. Children should fluently multiply from understanding and memory one digit multiplication problems.	NA/o	This standard allows teachers to select multiple strategies and does not require drill and practice. Curriculum decisions are made at the local level.
11-18	Karen Davies School Transformation Specialist Kanawha County Schools Charleston	Keep the current Next Generation Standards for mathematics. They are solid and reflect the hard work of qualified representatives. There is NO REASON to change them.	N/-	See Rationale 1.
11-18	Karen Davies School Transformation Specialist	Keep the current Next Generation Standards for mathematics. They are solid and reflect the hard work of qualified representatives. There is NO REASON to change them.	N/-	See Rationale 1.

	Kanawha County Schools			
11-18	Karen Davies School Transformation Specialist Kanawha County Schools Charleston WV	Keep the current Next Generation standards for mathematics. They reflect the work of qualified professional representatives. There is NO REASON to change them. To do so is meaningless and will be extremely costly.	N/-	See Rationale 1.
11-18	Anita Jarrett Teacher NCBOE Summersville WV	I would like to see some more Geometry in seventh grade, and perhaps a few less in probability (two more were added to this). Geometry Ideas: Intro to Pythagorean Theorem,	NA/-	As a result of recommendations offered through the Academic Spotlight process, two probability standards were added to seventh grade mathematics. Grade 7 Geometry standards address: solving problems involving scale drawings of geometric figures; drawing geometric shapes with given conditions; constructing triangles; slicing three-dimensional figures; solving problems involving area and circumference of a circle; solving multi-step problems related to supplementary, complementary, vertical, and adjacent angles; and solving real-world and mathematical

				problems involving area, volume, and surface area. Introduction of the Pythagorean Theorem would require an understanding of radicals and irrational numbers. These concepts are addressed in Grade 8.
11-18	Bob Morris Teacher cabell County Schools Barboursville wv	The standards are basically the same but they are easier to understand. They are more straight forward which makes for easier reading and understanding.	N/+	
11-18	Pam Hughes Teacher CMHS Cabell Co Ona WV	Reading through the standards -- I actually know what these mean. So much better. The first year we were so confused. We had to google things and finally find examples just to figure out what they wanted. So much better.	N/+	
11-22	Rebecca Wood Point Pleasant WV	Memorization of multiplication tables is as important as understanding how to reach these goals so it is good to see that in these standards. Good to see time and money concepts inserted in them also. Some things like these are vital skills for all in math.	N/+	
11-23	George I. Brown Pres, Gen Mgr The James & Law Co. Clarksburg WV	2520.2B Media reports say that, 'the WVBE recommends affording more local control to districts regarding choice of curriculum and instructional materials by allowing districts to select instructional materials that meet established criteria - rather than setting a list of approved instructional materials from which the districts may select a program for district-wide use'. This path ignores several advantages that the	N/o	Comment relates to adoption of instructional materials not this policy.

		current selection system affords our district, students, and taxpayers. Though more local control over curriculum selection is a laudable goal, dismantling the current selection system will come at a high cost. First, if every district must establish a committee of teachers and local stakeholders each year to determine whether or not the programs being offered by publishers/vendors meet the established criteria, the work now being accomplished by the state adoption committee will be replicated fifty-five times, by each district committee. There is a direct, local payroll expense associated with such redundancy. And, given the subjective nature of these evaluations, there is the distinct possibility that one district committee will approve a given program, while a neighboring district committee will not. What then? What body will have the final say? Currently, the state adoption committee makes the initial evaluation of a program. Any disputes regarding the outcome of that evaluation are dealt with at the state level. And then the county adoption committees are free to review all state-approved programs, and select the one each feels will provide their students and teachers with the greatest success. Second, the current system of district-wide program selection should be retained, for two reasons: a) district level selection (vs by-school selection) assures that students who must move from one school to another during the school year are assured of continuity of		

		instructional materials, rather than finding themselves at a disadvantage due to having to pick-up instruction in a completely different program, and b) district level selection assures the district and its constituents (the taxpayers who ultimately fund the school system, that any economies of scale available in the purchase of said program(s)are being taken advantage of. And last, West Virginia is a very small market, when one compares our student population to that of other states. For instance, we have fewer K-12 students than Atlanta-Fulton County, GA, or Miami-Dade County, FL, just to name a few. My experience, as a materials distributor, is that materials are (from a business standpoint) reasonable designed for those types of markets, in those populous states. The recent introduction of state-specific materials makes those materials, for low census states such as ours more possible than ever. But, the costs of state-specific materials are still higher than those of national programs, and the willingness of publishers/vendors to produce such programs is not assured. So if we get too far from the national programs, we will find ourselves with fewer program options, at premium prices.		
11-24	tony nichols Federal Programs Nicholas County Summersville WV	The committee suggested adding "identify coins" in Kindergarten; "know values of coins" in First Grade to make it easier on second grade teachers and students when they begin working with money. Solving word problems with money in 2nd grade is a large step without some background building.	A/-	Changes have been made to the policy that allow the identification of coins in kindergarten and recognition the value of pennies, nickels, and dimes in grade 1. The concept of money is also

		Some calendar aspects such as days, months, etc could be added to the kindergarten standards for measurement. Several Kindergarten teachers have requested that patterning and graphs be put back in the standards. I have no problems with fact fluency by 3rd grade, although I believe they were already in the previous set of standards.		reinforced through social studies standards in grades k-2. Teachers may develop curriculum that includes utilization of the calendar in kindergarten and the calendar is also addressed in grade 1 social studies.
11-25	Suzanne Teacher charleston wv	As a whole, the standards for kindergarten are not much different from the current standards for both Reading and Math. To me, it seems like an enormous waste of resources. We have invested so much time and money into the new standards as they are, and have not given them adequate time to show their effectiveness. Instead of throwing out the current standards, it would be more beneficial (and cost effective), to examine some of the programs being used such as Everyday Math in Kanawha County. We also need to educate the public about what the Common Core Standards are. I believe they are and make sure that they understand that these standards drive the instruction. The programs that a particular county chooses to use mandates the delivery of these standards to the students. It seems to me that more parents have come to associate "the common core" with confusing methods such as lattice multiplication, which are in Everyday Math. They need to understand that changing to new standards will not make such programs go away.	N/-	See Rationale 1.
11-27	Jane Kennedy	M.A1HS.15, M.A1hs.18, M.A1HS.44 & M.GHS.24,	A/o	The word understand was

	Assistant Principal Riverside High School Belle West	M.GHS.44 The above standards are not object. "Understand that the graph of an equation..." "Understand that a function..." "Understand that polynomials..." "Understand and apply the Law of Sines,,,: "Understand..." How will the students show their understanding? Will they explain, describe, analyze a graph?		replaced with the word recognize in all but one. M.GHS.24 already states "understand and apply."
12-02	Jan McNeel Owner Kids First Educational Consultant Hillsboro WV	M.3.5, M 3. 6, M. 3.7 The ability to complete higher mathematical equations rests on the foundation of 3rd grade automaticity of multiplication operations. It is appropriate this rigor be implemented in every school in WV. Provide the necessary staff development to make this happen using fun activities and movement.	N/o	Staff development and curricular decisions are made and requested at the local level.
12-04	Kathryn Alam Teacher Suncrest Middle School Morgantown WV	I would like to point out that the new numbering system for the standards is not as informative or clear as the old system. I think identifying which domain (geometry, number sense, expressions and equations, etc) being listed with the standard is extremely important. I know this may seem minor but from a classroom teacher who uses these everyday day do drive instruction these are critical. I feel these are most necessary when it comes to assessment. You are adding an extra step to make a teacher look up which domain a â€œnumberâ€• falls under instead of just telling us which domain when stating the standard. I really hope consideration is given to this considering in 6th grade math, what I predominately teach, this is one of the ONLY changes, and I really feel like it does not benefit the teacher or student so I truly cannot understand why it was done. There are 29 standards I am responsible for teaching,	N/-	See Rationale 3.

		and I do not think it should be expected for me to know where each of these standards fall without having the domain indicated in the numbering system. Thank you for your consideration.		
12-08	Monique Bucklen special education teacher Nitro High School Charleston WV	The standards do not ,provide an appropriate track for special education, average or below average students. The upper level students are also slighted because content previously taught in 6 courses has been condensed to 3 courses. The standards for Algebra, Geometry and Algebra 2 have not changed, the only differences are the naming and rewording of common core standards. If the intention is for all students to be college and career ready, then there should be an appropriate pathway ascertained when the student is in middle school or early high school so that the math courses can reflect the career goals determined by the parent and student. This means that not all students should be required to enroll in the same math courses in order to receive a high school diploma. Math courses should be reflective of the career aspirations, diversity of abilities and individual talents of students. Students mature cognitively at different rates and this pathway does not allow for differentiation and assumes that all students are the same based on grade level. The expectations may cause greater student apathy and drop out rate. Special education students will be overwhelmed and less likely to graduate. There are 61 Algebra 1 standards. The pace required to teach all standards is too intensive to be covered in the 180 school days if mastery is the expectation. There is no time built in for reteaching and remediation or	N/-	See Rationale 5 and 6

		testing.		
12-08	Ryne Eich Math Teacher Nitro High School Nitro WV	The standards for Algebra 1, Geometry, and Algebra 2 have not changed. The only differences are the naming and rewording of common core standards. If the intention is for all students to be college and career ready, then there should be an appropriate pathway ascertained when the student is in middle school or early high school, so that the math courses can reflect the career goals determined by the parent and students. This means that not all students should be required to enroll in same math courses in order to receive a high school diploma. Therefore all students are not the same and should not be in the same cookie cutter courses. Students mature cognitively at different rates and this pathway does not allow for diversity of instructions and assumes all students are the same based on grade level. For example there are 61 Algebra 1 standards. The pace required to teach all standards is too intensive to be covered in the 180 school days if mastery is the expectation. There is no time built in for reteaching,remediation, and testing.	N/-	See Rationale 5 and 6.
12-09	Melissa Kuhl Math Teacher Roane-Jackson Technical Center Millwood West	I reviewed the standards for the two courses I presently teach. Math III (High School) and Transition Mathematics for Seniors. I was not surprised to see that except for an occasional change of wording, that the standards and objectives were essentially the same as the current NxGen standards or WV's version of	N/-	See Rationale 1.

		Common Core. I find it very disappointing that the 'spin' on says that this round of 'new' standards is moving the state away from Common Core. I find it very disappointing that state leaders would mislead the citizens of WV in this way. When the 'new' standards are adopted and students, teachers, and/or parents still have the same complaints, the system of education will look quite foolish. Instead of 'bowing' to political pressure to move away from Common Core by adopting 'new' standards, we should be explain why teachers and/or educational leaders want to keep Common Core. Instead we are wasting time, energy, and money to prepare and adopt a 'new' set of standards.		
12-09	Susan Barrett School Improvement Coordinator Nicholas County Schools Summersville WV	Mathematical Habits of Mind (Standards for Mathematical Practice) - Al Cuoco, Paul Goldenberg, and June Mark introduced the concept of mathematical habits of mind in The Journal of Mathematical Behavior (15, no. 4 [1996]). These are not the same as the MHM in the proposed standards. The proposed standards simply rename the Standards for Mathematical Practice from the Common Core State Standards as the Mathematical Habits of Mind. Isnâ€™t this a violation of copyright of both documents? Suggestion: Keep the Standards for Mathematical Practice as written. Apparently there is no objection to their content. K-5 Narrative Introduction â€“ A sentence in the opening paragraph states,	N/- A/o	The Mathematical Habits of Mind in this policy like the Mathematical Practices are both based on National Council of Teachers of Mathematics' Process Standards. Terminology Mathematical Habits of Mind is now used

		â€œMathematical process goals, or habits of mind, include: reasoning abstractly and quantitativelyâ€¦â€• The first Standard for Mathematical Practice, labeled as Mathematical Habits of Mind in this document, has been omitted. It states, â€œMake sense of problems and persevere in solving them.â€• This is the most fundamental of the practices and should definitely be included at all grades. There is no reason to refer to the MHM/SMP as mathematical process goals in this section, using a third name for the same set of standards.		consistently throughout the document. Typographical error has been corrected.
		Organization of Standards â€“ The charts of â€œskills progressionâ€• at the beginning of the grade-level standards are confusing. The bulleted items are sometimes cluster-level statements given verbatim from the NxG/CCSS standards, other times these cluster statements are paraphrased, while other items are at the objective (now called standard) level. In several instances, a bulleted item is not referenced at all in the standards that follow. In other cases, the statement in the skills progression conflicts with the standards that follow. Specific examples of these issues are given in the comments at each grade level. The charts listing the clusters that immediately follow the skills progressions charts are clear, concise, and sufficient. Eliminating the skills progressions would be an improvement.	NA/-	The skills progress charts to make the document user friendly for parents, students and teachers.
		Numbering â€“	NA/-	See Rationale 3.

		The vast majority of standards (objectives) are the same as the NxG/CCSS and the domains and clusters remain the same as well. Numbering the standards in each grade level consecutively rather than using the domain-related labels makes it more difficult to see the connections in content from one grade to the next. The introduction to the new standards states that they â€œreflect a progression and key ideas determining how knowledge is organized and generated within the content area,â€• yet this renumbering obscures that organization and â€œdeeper structures inherent in the discipline.â€• This is not an improvement and does not clarify anything! Instructional materials have been aligned to the NxG/CCSS numbering system. This applies to materials already adopted as well as newer instructional programs from all publishers. Renumbering makes this alignment unnecessarily difficult to follow. This numbering also makes it more difficult for teachers to locate and identify additional resources related to the content of the particular standard. For example, a teacher can Google 2.NBT.3 lessons and get a wealth of resources. A search for M.2.7 lessons will turn up nothing.		
		Kindergarten Skills Progressions â€“ The Operations and Algebraic Thinking skills progression is given twice. The skills progression for Number and Operations in Base Ten is missing.	A/o	Duplication of chart was corrected.

		Kindergarten â€“ Skills Progressions â€“ Operations and Algebraic Thinking, Measurement and Data, Counting and Cardinality Three of the statements do not convey the same meaning as the standards that follow them and are NOT ACCURATE MATHEMATICALLY. Specifically, â€œCount objects to tell how many there are by ones and tensâ€• incorrectly combines two standards. M.K.1 refers to a counting sequence, not counting objects. The counting sequence is what students say when counting by tens. M.K.5 clearly states that students will count objects and answer questions about as many as 20 objects. This is about 1-to-1 correspondence and cardinality and is not related to counting by tens. (See M.K.4)	NA/-	Cardinality is defined as the number of items or elements in a set. Counting objects to identify how many there are would be included in this definition.
		Under Measurement and Data, the statement is, â€œClassify objects and count the number of objects in each category.â€ The example given is, â€œSort and classify pennies into groups of 5s or 10s.â€• That example is NOT sorting and classifying. What M.K.16 refers to is sorting a group of objects, like buttons, into categories, like color or number of holes, and then counting the number of buttons in each category. Under Counting and Cardinality, one statement is, â€œGroup pennies.â€• This does not relate to anything listed in the standards that follow; grouping pennies is not related to counting or cardinality, and the statementâ€™s meaning is not clear. What learning	A/o	An example has been added that allows students to identify specific coins.

		purpose is there in grouping pennies?		
		Kindergarten- Measurement and Data â€“ There was a recommendation from the Academic Spotlight Committee to add identification of dollar bills and coins in kindergarten, but this has not been done. Suggestion: Add a standard under Measurement and Data to address this recommendation. The two new standards that mention pennies do not address coin recognition or counting pennies, the very things that should be addressed in kindergarten.	A/-	Changes have been made to the policy that allow the identification of coins in kindergarten and recognition the value of pennies, nickels, and dimes in grade 1. The concept of money is also reinforced through social studies standards in grades k-2.
		Grade 1 â€“ Skills Progressions â€“ Number and Operations in Base Ten There was a recommendation to add knowing the value of pennies, nickels, dimes, quarters, and dollar bills, but this has not been included in the proposed standards. Under Number and Operations in Base Ten, the last bulleted statement says, â€œSort and classify pennies, nickels, and dimes into groups of ten.â€• There are several problems with this. First, sorting and classifying objects belongs under Measurement and Data. Second, sorting coins into groups of ten serves no useful purpose â€“ unless students know the value of each coin and are counting a group of coins to find the total value. Third, this is the only mention of money in the standards for first grade. How can it be important enough to list in the chart at the beginning of the grade and then not mentioned in the standards themselves? The recommendation of the review committee has not been addressed. Suggestion: under Measurement and Data,	A/-	Changes have been made to the policy that allow the identification of coins in kindergarten and recognition the value of pennies, nickels, and dimes in grade 1. The concept of money is also reinforced through social studies standards in grades k-2.

		add a standard saying, â€œKnow the value of pennies, nickels, dimes, and quarters and find the value of a group of pennies, nickels, dimes, or quarters with a total value up to $1. (Finding the value of a mixed group of coins could be addressed in grade 2, as this is a more difficult skill.) Grade 1 â€“ Skills Progressions â€“ Number and Operations in Base Ten The second bulleted statement would be more aligned to the standards that follow if it included the entire wording from the cluster. It would then say, â€œUse understanding of place value and properties of operations to add and subtract.â€• Grade 1 â€“ Skills Progressions â€“ Operations and Algebraic Thinking The wording in the second part of this skills progression states, â€œAdd quickly and accurately with a sum of 10 or less and quickly and accurately subtract from a number 10 or less.â€• This does not align with standard M.1.6, which asks students to â€œdemonstrate fluencyâ€□ and â€œuse strategies such asâ€¦.â€• The emphasis in the standard is not on speed but on mastering strategies that demonstrate flexibility with numbers. Emphasizing speed over understanding is a step backward. The second grade standard requires students to â€œknow from memoryâ€• the single digit addition sums; let that wait until second grade to give time for understanding to develop. For reference, see former NCTM President Linda Gojakâ€™s article	A/o A/o	This change was made. This change was made.

		http://www.nctm.org/News-and-Calendar/Messages-from-the-President/Archive/Linda-M_-Gojak/Fluency_-Simply-Fast-and-Accurate_-I-Think-Not!/ There was no recommendation from the committee on this topic. Apparently the majority of people who teach this and understand the mathematical framework of the standards did not have a problem with the standard as written.		
12-10	Susan Teacher Begunich Morgantown WV	To teach students skills and competencies essential for success.	N/o	
12-10	Susan Barrett School Improvement Coordinator Nicholas County Schools Summersville WV	Grade 2 â€“ Skills Progressions â€“ Operations and Algebraic Thinking â€“ Examples would be more appropriately given at the standard level. These skills progression statements are too broad for an example to convey the meaning of the standard. For example, the first bullet gives an example of a one-step problem. This would be more helpful under M.2.1, especially if an example of a two-step problem was also given.	NA/o	Due to the nature of the chart as a broad overview of the standards, one example is sufficient.
		Grade 2 â€“ Skills Progressions â€“ Operations and Algebraic Thinking â€“ The second bulleted statement uses â€œquickly and accuratelyâ€□ instead of â€œfluentlyâ€□ as stated in M.2.2. The last part of the statement already says, â€œknow all sums of one-digit numbers from memory by the end of second grade,â€• so the first part seems redundant. There was no recommendation from the committee regarding this topic.	A/o	This change was made.

		Grade 2 â€“ Skills Progressions â€“ Measurement and Data â€“ The second bulleted statement needs more detail; it just says, â€œTell time.â€• Standard M.2.20 calls for students to tell time â€œto the nearest five minutes.â€• Telling time to the minute is a third grade standard (M.3.16).	NA/o	This chart provides a broad overview of the standards; specifics are found in the standards.
		Grade 2 â€“ Skills Progressions â€“ Measurement and Data â€“ The third bulleted statement says, â€œCount money.â€• This does not align with the only second grade standard that relates to money (see M.2.21). Perhaps adding another standard to the cluster about time and money before M.2.21 would be the best solution.	NA/o	This chart provides a broad overview of the standards; specifics are found in the standards.
		Grade 2 â€“ Skills Progressions â€“ Number and Operations in Base Ten â€“ The second bulleted statement has two parts that cause concern. Part of the cluster was omitted â€“ it should say, â€œUse place value understanding and properties of operations to add and subtractâ€• to align with what follows. The second part of the statement does not match the standards for second grade. There is no emphasis on speed of calculation at this grade level â€“ see standards M.2.1, M.2.9, M.2.10, M.2.11, M.2.12, and M.2.13. The standard algorithms for addition and subtraction are in the standards for grade 4. To say that second graders should â€œadd and subtract two-digit	A/o	This change was made.

		numbers quickly and accurateleyâ€• does not align with the expectations in the standards that follow. There was no recommendation from the committee regarding this topic. Grade 2 â€“ Skills Progressions â€“ Geometry â€“ The first bulleted statement says, â€œâ€¦to develop foundations for area, volume, and geometry in later grades.â€• There is nothing in the second grade standards that follow which relates to volume. Work with volume begins in fifth grade. Grade 2 Measurement and Data â€“ M.2.15 â€“ There is a typo in this standard. It should end after â€œâ€¦size of the unit chosen. â€• The rest of the sentence must have been accidentally copied and pasted from a geometry standard. Delete â€œand compare and contrast plane and solid geometric shapes.â€•	NA/o A/o	Later grades in this instance is grade 5. Typographical error corrected.
12-10	Blaine Hess Superintendent Jackson County Schools Ripley WV	I support the approval of the WV College and Career Readiness Standards for Mathematics. The approval of the standards reflect support for the work and recommendations of the Academic Spotlight efforts over the past several months. It is crucial that our state standards be firmly established so that teachers will have clear standards upon which to base instruction. The uncertainty and turmoil of the standards debate must be put to rest for the good of the students in West Virginia.	N/+	
12-11	Susan Barrett School Improvement Coordinator	Grade 3 - Skills Progressions â€“ Operations and Algebraic Thinking â€“ Regarding the first bulleted item, if a student can	A/o	This change was made

	Nicholas County Schools Summersville WV	â€œmultiply and divide up to 10 x 10 fluently and accuratelyâ€□ there is no need to â€œknow the times tables from memory.â€• Fluency is defined as being accurate, efficient and flexible with numbers. Fluency is arrived at through understanding and practice. Memorizing a table of numbers does not require understanding. Standard M.3.7 states, â€œBy the end of grade 3, know from memory all products of one-digit numbers,â€• and that is more clear than this statement in the Skills Progression. There was no recommendation from the committee on this topic. Grade 3 â€“ Skills Progressions â€“ Number and Operations - Fractions There is a typo in the statement. It says, â€œUnderstand fractions and relate them to the familiar system of while numbersâ€¦â€□ and it should say, â€œUnderstand fractions and relate them to the familiar system of whole numbers.â€•	A/o	Typographical error was corrected.
		Grade 3 â€“ Skills Progressions â€“ Geometry The third bulleted statement does not make sense mathematically. If this refers to the connection between geometry and fractions, then the statement needs to say something about equal parts. Parts of a shape are not units of a whole. Grade 3 â€“ Number and Operations â€“ Fractions There should be a note with the cluster title that at this grade level, expectations â€œare limited to fractions with denominators of 2, 3, 4, 6, and 8.â€• This was in	A/o	This change was made.

		the original standards and is important to note. Grade 3 â€“ Number and Operations â€“ Fractions â€“ M.3.14 M.3.14 The examples for parts a and b do not clarify the meaning of these standards. The example for part b is particularly problematic as it does not align with the meaning of the standard. The standard is about iterating intervals of a given length. One of these intervals is 1/b; the sum of a lengths of 1/b would be a/b. Grade 4 â€“ Skills Progressions â€“ Operations and Algebraic Thinking There are two statements in this box that belong in Number and Operations in Base Ten: â€œAdd and subtract whole numbers quickly and accurately (numbers up to 1 million)â€□ and â€œMultiply and divide multi-digit numbers in simple casesâ€¦.â€• These statements are about specific computational expectations rather than generalized rules for operating on numbers. Since the cluster statement about performing multi-digit arithmetic is already given in the Number and Operations in Base Ten box, these additional statements are unnecessary. The specific details are in the standards that follow. Grade 4 â€“ Skills Progressions â€“ Number and Operations â€“ Fractions The first statement does not make sense mathematically. You donâ€™t order equivalent fractions â€“ they have the same value. Why not just use the cluster statements	A/o NA/- NA/-	This change was made in M.3.13, M.3.14, and M.3.15. Examples added here by the Academic Spotlight Committee merely replace variables with values. The example is clear. The skill progressions are guides for parents, students and teachers to know what to expect at each grade level.

		as written, as is done in the chart with the renumbering of the standards? The examples here are not necessary; the specific details are in the standards that follow.		
		Grade 4 â€“ Skills Progressions â€“ Geometry The second statement belongs in the Measurement and Data section, not Geometry. See the standards that follow â€“ angle measure is the last cluster there. The statement should read, â€œMeasure angles and find unknown angles in a diagram.â€• (not finding unknown angles)	A/o	This change was made. Statement reworded to say “measure angles and find unknown angles in a diagram.”
		Grade 4 â€“ Measurement and Data â€“ M.4.21 The rewrite of M.4.21 combined two sentences and changed the meaning of the standard. This could be fixed by using the original wording or helped by saying, â€œâ€¦mathematical problems, including viewingâ€¦.â€•	NA/o	
		Grade 5 â€“ Skills Progressions â€“ Number and Operations â€“ Fractions The cluster titles were more clear and concise than these new statements. Examples belong in the standards that follow the charts.	NA/-	The skills progression chart and the cluster title chart are included in the policy to provide both an overview and a clear and detailed description.
		Grade 5 â€“ Skills Progressions - Measurement and Data â€“ The second statement is one of the standards rather than a cluster. It could be made more concise by saying, â€œMake a line plot to display a data set with fractional units of measure and interpret the data to solve	A/o	This change was made.

		problems.â€• Grade 5 â€“ Chart with Cluster Titles The clusters listed under Geometry are from a Math IV course option â€“ Advanced Mathematical Modeling â€“ rather than fifth grade Geometry. Grade 5 â€“ Number and Operations â€“ Fractions â€“ M.5.14 The wording of the standard is the same as before but the use of italics has not been carried over. This makes the meaning of the statement harder to understand, particularly in the first sentence, where it says, â€œInterpret the product (a/b) x q as a parts of a partition of q into b equal partsâ€¦â€• With italics it says, â€œInterpret the product (a/b) x q as a parts of a partition of q into b equal partsâ€¦.â€• (I have underlined where the italics should be in case the formatting doesnâ€™t carry over.) Grade 5 â€“ Geometry Both cluster titles are incorrect. These are from Advanced Mathematical Modeling, not fifth grade.	A/o NA/- A/o	This change was made. Using italics is not consistent with the rest of the policy formatting. This change was made.
12-11	Brad Moreland Math Teacher Nitro High School Nitro WV	These standards are a rewording of the Common Core standards. There is no actual difference between these standards and the standards under Common Core. If the goal is to replace Common Core, this is a failure. These High School Standards do not work for High School. This is not a good system for any student. For special ed and lower level students, they are now expected to go	N/-	See Rationale 1, 2, and 6.

		through the equivalent of what used to be precalculus. These are students do not need that level of math knowledge and are, quite frankly, not capable of doing that in the time allowed to learn it. This system will have unsuccessful, frustrated students. Staying this course will lead to a lower graduation rate and higher drop out rate. For the middle of the road students and higher students this is still a problem. The standards in Math I, II and III, or Algebra 1, Geometry, and Algebra 2 were once 6 classes. That means that those 6 classes are now 3. For the middle of the road students that means that there is less time to teach the students the standards. I can teach all the standards in Algebra 1 in the time allotted to do so, but that doesn't mean the students can comprehend it in that time. Under the current (and this system) to get in all the standards for Algebra I, there are units that have to be taught in 3 days. A whole 3 week unit in 3 days, and that doesn't even factor in days for testing. For the higher level students this condensation of time means that the students are not getting the depth of knowledge that they used to. Furthermore, project based learning has been proven to be an affective learning tool, but there is no time for it with these standards. In conclusion, no group of students benefits from the standards as they are written in here. The standards should be spread out between more classes so students can succeed to their highest potential.		
12-13	Joanna Burt-	I appreciate the chance to regularly take stock of how	N/-	See Rationale 3.

	Kinderman District Math Coach Pocahontas County Schools Hillsboro WV	WV's standards are (and are not) working in classrooms. I am grateful to have had the opportunity to participate in this review, and am certain that the standard revisions in high school math will benefit all teachers and students, as they arose out of consensus of the group of teachers engaged in the review. That said, there is still an outstanding issue for high school math that doesn't affect any other grade band or subject. Because the high school math standards offer two pathways, there is more opportunity for confusion. I would like the board to consider an additional revision: Ensure that similar standards across courses are named similarly, to ease resource sharing across the state and despite choice of pathways. Right now, the following four codes for standards in Math I 8, Math I, Algebra I 8 and Algebra I all refer to the EXACT same standard. I believe that they should have the exact same code. Mi.HS8.33, M.IHS.28, M.A18.10. If a teacher, parent or student wanted to find related content to study on ACT, SAT or Khan Academy, they would need to search for REI.B3. Anything we can do to streamline and simplify the naming and numbering of high school math standards will benefit teachers, parents, and students in WV.		
12-14	Dennine LaRue Temporary Assistant Professor of Mathematics Fairmont State University Fairmont WV	M.1HS.3 through 51 The geometry content standard are reasonable. M.2HS.39 through 61 These geometry content standards will help make the connection with algebra equations and transformations which are emphasized in higher education classes such a college algebra. M.2HS.42 and 43 This has been missing in WV content standards for quite some time and it is important for	N/+	

		higher education math classes. M.GHS.1 through 55 I feel this is a better approach to teaching the geometry concepts rather than having them in the integrated approach. Not all teacher will be proficient at teaching Euclidean geometry with a transformational approach. This approach actually relates algebra and geometry and I fully approve of this approach.		

Action	
N	No Response
NA	Not Accepted
A	Accepted

Type	
-	Negative
+	Positive
o	Neutral

DATE	INDIVIDUAL ORGANIZATION	COMMENTS	ACTION/ TYPE	RATIONALE
§126-44BB-1 General				
11-14	Shelly Spec Ed teacher Berkeley county board of Ed Martinsburg We	As a teacher I an disappointed in my own child's education they received. They were not prepared for college. I feel the standards are too broad and hard to understand.		
11-16	Phyllis Myers Retired Ronceverte Wv	I feel all the standards are reasonable expectations for students to master while in school.		
11-16	Phyllis Myers Retired Ronceverte Wv	I feel all the standards are reasonable expectations for students to master while in school.		
11-17	Nancy Maze Teacher Math2 Pleasants Co. St.Marys Wv	I see no difference between NexGen and Career College Readiness standards other than the numbering.		
11-18	Richard Burdiss Teacher Parkersburg South High School Parkersburg wv	We should do away with the state tests at the high school level and replace it with the ACT or SAT. These tests are valid, reliable, and already have been given for many years. They also are a great predictor of success in college.		
11-18	Anita Jarrett Teacher	ALL STANDARDS These are just the Common Core standards with a new title and number. Why are they not okay being called the Common Core, but West Virginia College-		

	NCBOE Summersville WV	and Career- Readiness is acceptable when THEY ARE THE SAME STANDARDS!!! I thought we had solid reasons as to why the Common Core Standards were not going to meet our ever-changing needs and wants. How is changing the name going to resolve those issues? Are there not copyright issues going on here? Don't get me wrong, I am okay with these Standards, it is just there are too many conflicting stories going on. We would hold our students accountable for just changing the name on someone else's paper and accepting it as their own. This does not abode well.		
11-20	David Delk Wheeling WV	Headlines across the State of West Virginia on November 13, 2015 declared that the State Board of Education and State Superintendent Dr. Michael Martirano had recommended a repeal of the stateâ€™s Next Generation/Common Core academic standards in English and Math to be replaced with the College and Career Readiness Standards. These headlines got it half right. Dr. Martirano has proposed eliminating the Next Generations Standards, but nothing about Common Core is being eliminated. In a carefully worded press release, the West Virginia Department of Educations (WVDE) made no mention of Common Core but did strongly assert that the College and Career Readiness standards are â€œnew standards.â€ This assertion is just plain false. I hope many parents will find it interesting and informative that every single Common Core standard in the soon to be repealed Next Generation standards appear in the College and Career Readiness standards. It should also be instructive and enlightening to parents that neither the WVDE, Dr. Martirano nor the State Board felt it important to mention the fact that the Common Core standards would remain in effect. It is disappointing that the WVDE cannot be honest with parents and just admit that the College and Career Readiness standards are Common Core 2.0. What is new in the College and Career Readiness standards is the insertion of cursive writing instruction in grades 2-3, explicit mention for students to learn multiplication tables by the end of grade 3, and the addition of standards specific to Calculus with the expectation of Calculus being available to all students. Please just reflect on the fact that the actual â€œrigorousâ€ Common Core standards have no provision for learning cursive, the times tables or were advanced enough to include Calculus standards. These are indeed welcomed additions, but the College and Career Readiness standards still are just a re-		

		branding and re-naming of Common Core. I am sure skeptics will say that they saw on the news that Common Core in West Virginia was being repealed, and surely the WVDE would not misrepresent such a decision. The most telling evidence that Common Core will remain in place with these â€œnewâ€ standards is that the same Common Core standardized testing will be given to our students. West Virginia is part of the Smarter Balanced Assessment Consortium (SBAC) along with eighteen other states, according to its website. These standardized tests, according to the testing company American Institutes for Research, are specifically designed and created to measure student progress on only Common Core standards. If the College and Career Readiness standards were truly a departure from Common Core, the SBAC test would in no way align with the new standards. However, the WVDE press release on a reduction of standardized testing makes no mention of revisions to the SBAC. The reason that the SBAC test remains unchanged is that any comparison of the â€œnewâ€ standards with the â€œoldâ€ standards, whether that comparison is cursory or comprehensive, demonstrates that all the Common Core standards are repeated almost word for word in every instance from old to new. P.T. Barnum is credited with saying â€œthereâ€™s a sucker born every minute.â€ The WVDE is showing the same regard for the parents of West Virginia with the College and Career Readiness standards. Dr. Martirano and the WVDE should be forthright with the public about what it is actually doing. My hope is the West Virginia Legislature will do its due diligence on Common Core 2.0 and not just accept the WVDEâ€™s re-branding of the Next Generation standards at face value. It is one thing to have a legitimate disagreement and debate about state education standards. It is another thing for government officials to engage in deceptive practices to implement education policy. Our children deserve better.		
11-24	tony nichols Federal Programs Nicholas County Summersville WV	Why are we renaming Mathematical Practices to Habits of Mind? This will cause confusion. Is this not plagiarism? The re-numbering and reformatting is not going to match numbers aligned to new instructional materials already purchased, nor will it assist teachers in finding supplemental materials already aligned. I think it is going to be more unfriendly for teachers to use the new numbers. They will have to go back and		

		redo curriculum maps, etc. Where are the performance descriptors?		
11-30	Tega McGuffin Teacher Fayette County Schools Oak Hill WV	Content is grade and developmentally appropriate; Vertical progressions along different grade levels are evident; Gaps in operations and fractions have been addressed and clarified; Calculus standards have been added for uniformity; Transition math for seniors standards focus on problem solving and real world accountability; Standards for the traditional pathway and the newer pathway (Math I-IV) are provided; Addition of STEM readiness standards; Addition of multiplication tables in 3rd grade.		
12-01	Marcia Manley Ms. Nitro High School Nitro WV	The "new" CSO's are only negligibly different from the NexGen CSO's. We can label the CSO's "Algebra I," "Geometry," etc., giving the illusion of returning to CSO's for those classes from years ago, but the weaknesses of the NexGen CSO's still exist, and students remain harmed by the unreasonable expectations.		
12-02	Tracey Taylor Keyser WV	Am I the only one that sees these as being the same standards, at least for 5th grade, except you took the NxGen title off of them? The standards for 5th grade are the same ones I have been teaching now for 3 years!		
12-03	Jamie McPeak Student WVNCC Bridegport Ohio	On this Board of education on math I believe that they should keep it traditional way, but with some new things. I believe that they should kind of recognize adding and subtracting in kindergarten. Being able to try to write the numbers 0-20. I also believe they should recognize the shapes. I don't believe that kindergarten should be able to describe and compare objects as longer, shorter, larger, smaller, etc. Classify objects and count the number of objects in each category. Sort and classify pennies into groups of 5s or 10s. I believe that it's to much for them to do yet. There's also kids with learning disabilities I think that it would be kind of difficult for them to have to know all this stuff too. I know there's special classes for these students, but those don't usually start till later. There's also kids that are kind of slow at learning these stuff. It would be difficult to do all these math things. I believe that these kindergarten kids should be able to play and have fun, but they're learning at the same time. They need to learn by doing fun experience or being doing math with fun activities.		
12-08	Monique Bucklen special education teacher	The standards for Algebra, Geometry and Algebra 2 have not changed, the only differences are the naming and rewording of common core standards.		

	Nitro High School Charleston WV			
12-08	Ryne Eich Math Teacher Nitro High School Nitro WV	The standards for Algebra 1, Geometry, and Algebra 2 have not changed. The only differences are the naming and rewording of common core standards. If the intention is for all students to be college and career ready, then there should be an appropriate pathway ascertained when the student is in middle school or early high school, so that the math courses can reflect the career goals determined by the parent and students. This means that not all students should be required to enroll in same math courses in order to receive a high school diploma. Therefore all students are not the same and should not be in the same cookie cutter courses. Students mature cognitively at different rates and this pathway does not allow for diversity of instructions and assumes all students are the same based on grade level. For example there are 61 Algebra 1 standards. The pace required to teach all standards is too intensive to be covered in the 180 school days if mastery is the expectation. There is no time built in for reteaching,remediation, and testing.		
12-09	WVNCC Student Student WVNCC New Martinsville WV	I am satisfied with the repeal of the Common Core teachings. I think it will be beneficial for the teachers to choose their own class materials and plan their own curriculum. I think that tailoring courses to individual student needs will not only help successfully educate more kids, but will take away any unfair expectations and level the playing field for children who learn in different ways.		
12-10	Susan Teacher Begunich Morgantown WV	Defines delivery system, assessment and accountability system		
12-10	Rhonda Jelich Director of Elem Ed & Staff Dev Jackson County Schools Ripley WV	The language in the standards is clear and concise. Much easier for teachers and parents to understand. The presentation better meets the community's needs. The third grade standard that states that students must learn their multiplication tables is just one example. The standard was always present, but only an educator understood that it was present. Changes are good for all!		

12-14	Andy Bird Hurricane WV	Content is grade and developmentally appropriate; Vertical progressions along different grade levels are evident; Gaps in operations and fractions have been addressed and clarified; Calculus standards have been added for uniformity; Transition math for seniors standards focus on problem solving and real world accountability; Standards for the traditional pathway and the newer pathway (Math I-IV) are provided; Addition of STEM readiness standards; Addition of multiplication tables in 3rd grade		
12-14	Anita Jarrett Teacher NCBOE Summersville WV	The standards also needs a return back to the basics. Students are coming into middle school without knowing basic computation and facts. Let us remember Piaget please. Students go through particular stages and I believe we are trying to push students beyond what their mind truly is capable of at any given moment. I am not saying not to push students, that for sure needs done. But the work and standards we have should be developmentally appropriate and as of right now, many are not. I believe we need to start putting more faith in teachers ability to teach and not so much on a curriculum made by people who do not understand education. Let us use the curriculum as a tool, not as a lead. We also need to get back to using manipulatives to help explain concepts. In addition, there is a lot of validity into using worksheets with several of the same type of problems on it. If we know anything about our brains, it is our brain automatically uses patterns to categorize everything, patterns are found in nature. For these reasons we need to use patterns, doing the same type of problem over and over to help make connections!!!		
12-14	Deborah Bever Director Ritchie County Schools Harrisville WV	I find the proposed changes to be very user friendly and much easier to understand.		
§126-44BB-2 Purpose				
11-14	Shelly Spec Ed teacher Berkeley county board of Ed Martinsburg We	The purpose of changing standards to prepare our kchildren for their future. WV is not prepared wrong our students for their future and we need to take a close look at what and how curriculum is being taught. The standards now do not allow creativity in the classroom and are created in a way that we are teaching students like robots. Students do it want to come to school and are not enjoying school.		
11-24				

	tony nichols Federal Programs Nicholas County Summersville WV	The standards in this new numbering format may read easier for parents, but the intent for deep understanding and depth of knowledge may be sacrificed. Will teachers use them as "check off" system and simply "cover" material as opposed to going deep? Are we going back to more content and less understanding?		
12-08	Monique Bucklen special education teacher Nitro High School Charleston WV	If the intention is for all students to be college and career ready, then there should be an appropriate pathway ascertained when the student is in middle school or early high school so that the math courses can reflect the career goals determined by the parent and student. This means that not all students should be required to enroll in the same math courses in order to receive a high school diploma. Math courses should be reflective of the career aspirations, diversity of abilities and individual talents of students.		
12-08	Ryne Eich Math Teacher Nitro High School Nitro WV	The standards for Algebra 1, Geometry, and Algebra 2 have not changed. The only differences are the naming and rewording of common core standards. If the intention is for all students to be college and career ready, then there should be an appropriate pathway ascertained when the student is in middle school or early high school, so that the math courses can reflect the career goals determined by the parent and students. This means that not all students should be required to enroll in same math courses in order to receive a high school diploma. Therefore all students are not the same and should not be in the same cookie cutter courses. Students mature cognitively at different rates and this pathway does not allow for diversity of instructions and assumes all students are the same based on grade level. For example there are 61 Algebra 1 standards. The pace required to teach all standards is too intensive to be covered in the 180 school days if mastery is the expectation. There is no time built in for reteaching,remediation, and testing.		
12-10	Susan Teacher Begunich Morgantown WV	Defines Content Standards		

§126-44BB-3 Incorporated by Reference				
12-08	Monique Bucklen special education teacher Nitro High School Charleston WV	Students mature cognitively at different rates and this pathway does not allow for differentiation and assumes that all students are the same based on grade level. The expectations		
12-08	Ryne Eich Math Teacher Nitro High School Nitro WV	The standards for Algebra 1, Geometry, and Algebra 2 have not changed. The only differences are the naming and rewording of common core standards. If the intention is for all students to be college and career ready, then there should be an appropriate pathway ascertained when the student is in middle school or early high school, so that the math courses can reflect the career goals determined by the parent and students. This means that not all students should be required to enroll in same math courses in order to receive a high school diploma. Therefore all students are not the same and should not be in the same cookie cutter courses. Students mature cognitively at different rates and this pathway does not allow for diversity of instructions and assumes all students are the same based on grade level. For example there are 61 Algebra 1 standards. The pace required to teach all standards is too intensive to be covered in the 180 school days if mastery is the expectation. There is no time built in for reteaching,remediation, and testing.		
12-10	Susan Teacher Begunich Morgantown WV	Copies obtained from Sec. of the State		
§126-44BB-4 Summary of the Content Standards				
11-14	Shelly Spec Ed teacher Berkeley county board of Ed Martinsburg We	The current standards are too vague and the proposed standards seem easy to understand, but there still seems like a lot to teach in one school year.		

11-16	Phyllis Myers Retired Ronceverte Wv	M37 is of great concern. Math facts memorized for speed reminds me of the Multiplication drills my children endured, and never fully understood what multiplication really meant. My kids were good students, but weren't fluent in math. I would rather see fluency than speed. Doesn't it make sense to know something well rather than to bark out an answer and not know why?		
11-16	Phyllis Myers Retired Ronceverte Wv	M37 is of great concern. Math facts memorized for speed reminds me of the Multiplication drills my children endured, and never fully understood what multiplication really meant. My kids were good students, but weren't fluent in math. I would rather see fluency than speed. Doesn't it make sense to know something well rather than to bark out an answer and not know why?		
11-18	Richard Burdiss Teacher Parkersburg South High School Parkersburg wv	The new standards are easier to interpret and implement. But my opinion is we should go back to the Algebra, Geometry, Algebra II, Trigonometry, and Pre-Calculus. Compressing five subjects into three or four years is not sound teaching methods. We should also have a low level math class such as Business math or consumer math since everyone does not go to college.		
11-24	tony nichols Federal Programs Nicholas County Summersville WV	Educational standards should be written and developed by educational professionals not legislative agendas. The standards we have currently are good. We just need more professional development for teachers and better platforms for parent outreach. These "new" standards are a little clearer, but may be sacrificing the intent of deep understanding.		
11-30	Tega McGuffin Teacher Fayette County Schools Oak Hill WV	Standards are clear, more precise and user-friendly with a stream-lined organization based off of a clustering system.		
12-08	kirby asbury math teacher nitro high nitro wv	The standards for Algebra, geometry, and algebra 2 have not changed. The only differences are the naming and rewording of common core standards. If the intention is for all students to be college and career ready then there should be an appropriate pathway ascertained when the student is in middle school or early high school so that the math courses can reflect the career goals determined by the parent and student. This means that all students should be required to enroll in the same math courses in order to receive a high school diploma. Students mature cognitively at different rates and this pathway does not allow for		

		diversity of instruction. All students are not the same.		
12-08	Monique Bucklen special education teacher Nitro High School Charleston WV	There are 61 Algebra 1 standards. The pace required to teach all standards is too intensive to be covered in the 180 school days if mastery is the expectation. There is no time built in for reteaching and remediation or testing. The standards do not provide an appropriate track for special education, average or below average students. The upper level students are also slighted because content previously taught in 6 courses has been condensed to 3 courses. The standards for Algebra, Geometry and Algebra 2 have not changed, the only differences are the naming and rewording of common core standards. If the intention is for all students to be college and career ready, then there should be an appropriate pathway ascertained when the student is in middle school or early high school so that the math courses can reflect the career goals determined by the parent and student. This means that not all students should be required to enroll in the same math courses in order to receive a high school diploma. Math courses should be reflective of the career aspirations, diversity of abilities and individual talents of students. Students mature cognitively at different rates and this pathway does not allow for differentiation and assumes that all students are the same based on grade level. The expectations may cause greater student apathy and drop out rate. Special education students will be overwhelmed and less likely to graduate. There are 61 Algebra 1 standards. The pace required to teach all standards is too intensive to be covered in the 180 school days if mastery is the expectation. There is no time built in for reteaching and remediation or testing.		
12-08	Ryne Eich Math Teacher Nitro High School Nitro WV	The standards for Algebra 1, Geometry, and Algebra 2 have not changed. The only differences are the naming and rewording of common core standards. If the intention is for all students to be college and career ready, then there should be an appropriate pathway ascertained when the student is in middle school or early high school, so that the math courses can reflect the career goals determined by the parent and students. This means that not all students should be required to enroll in same math courses in order to receive a high school diploma. Therefore all students are not the same and should not be in the same cookie cutter courses.		

		Students mature cognitively at different rates and this pathway does not allow for diversity of instructions and assumes all students are the same based on grade level. For example there are 61 Algebra 1 standards. The pace required to teach all standards is too intensive to be covered in the 180 school days if mastery is the expectation. There is no time built in for reteaching,remediation, and testing.		
12-08	Erin Petry Nitro High School Nitro WV	The standards for algebra, geometry and algebra 2 have not really changed the only differences are naming and rewording of Common Core Standards. If the intention is for all students to be college and career ready then there should be an appropriate pathway ascertained when the student is in middle school or early high school so that the math courses can reflect the career goals determined by the parent and student. This means that not all students should be required to enroll in the same math courses in order to receive a high school diploma.The does not allow for the diversity of goals, aspirations, and individual talents of individual students. Therefore they should not all be in the same cookie cutter classes.Career ready for engineering is different than career ready for graphic design or marketing. Students mature cognitively at different rates. A single pathway does not allow for any diversity of instruction. It assumes that all students are the same based solely on grade level. For example, There are 61 Algebra 1 standards. The pace required to cover all standards is too intensive to be covered in a 180 day school year if mastery is the expectation. There is no time built in for reteaching or differentiation.		
12-10	Susan Teacher Begunich Morgantown WV	Provides focus for teachers.		
12-14	Andy Bird Hurricane WV	Standards are clear, more precise and user-friendly with a stream-lined organization based off of a clustering system.		
12-14	Amanda Shelton Teacher, local union	I have read the math standards from K-8 and skimmed the high school pathways. I was a part of the Academic Spotlight and find these standards better than any I		

	president CCMS, AFT-Clay Clay WV	have seen in my 16 years experience. Those legislators that want more revision based on more successful states need to realize that 44 (?) other states are using the same standards (maybe a few adjectives and examples are different. Consideration also needs to be given to the types of communities that make up our state compared to other more successful ones.		
§126-44BB-5 Severability				
11-14	Shelly Spec Ed teacher Berkeley county board of Ed Martinsburg We	Teachers are not enjoying their job and are leaving the profession because it has become more like a factory job. Teachers can not allow flexibly in the classes. Lessons are not being taught to the depth of knowledge that is required. The curriculum is a mile wide and an inch deep. Rather than a mile deep and an inch wide. There are too many things to be taught each year and stud eye are not retaIning information. Other countries are ahead of us because they do not take on so many standards a school year.		
12-10	Susan Teacher Begunich Morgantown WV	circumstances held invalid		
12-14	Amanda Shelton Teacher, local union president CCMS, AFT-Clay Clay WV	I am concerned that a precedence is being set with our state lawmakers. Will they consider revising standards every election cycle and put our school system through this waste of time every two years?		
§West Virginia College- and Career-Readiness Standards for Mathematics Please identify standard prior to comments				
11-14	Nathan Boron St Marys wv	I am not the most educated of everyone within the State. I do have two AAS degrees, work as a chemical operator, and own my own business. All these things can be directly linked to the things I have learned starting as early as 5 yrs of age. I have 3 sons that have adapted to the common core values of frankly which I still do not understand. I have been into meeting after meeting with teachers to explain to me my kids test scores are low but yet they can maintain straight A and a occasion B on the report card. Even to the point my middle son the school was convinced had a learner my disability of which he was tested for to find out what I told them was accurate. Every child learns differently and the teacher should have the ability to teach to the way they learn		

11-14	Robin Daquilante Tyler County Schools Middlebourne West	In Grade 3, Number and Operations, Fractions: the word should be "whole" not "while"		
11-14	jessica steele ballard wv	The common core standard is a joke! That statement is proven! I will be pulling my children out of school to home school if this type of standard or any other similar to it continues to be taught in school. The method of common core has confused my children to where they have trouble doing traditional math. All my kids are straight A students. I had to teach them cursive writing myself so they can function in the real world later in life. This common core standard has truly dumbed down our children and confused them. I don't care how much it cost to switch textbooks, but it needs to be done no matter what or i know of a few kids in my area that won't be attending public school. Trust me, I'm not the only parent that feels this way! That would mean less federal money for the school!		
11-14	Lisa Syner Teacher Kanawha County Schools Charleston WV	M.2.21 Second Grade Measurement Standard; I have taught 2nd grade for many years and have a concern that identifying coins and their values is not addressed in the Kindergarten Standards for First Grade Standards; According to the Common Core Standards and new proposed College and Career Readiness Standards, the first mention of money is in Second Grade. That means that students will have to learn to identify, count like coins, count coin combinations, identify bills, count like bills, count bill combinations, count coin and bill combinations and solve word problems using all of those skills in one grade. It would be more beneficial to expect the students to identify coins in Kindergarten, count by like coins in First Grade and then let Second Grade build upon that knowledge to combine coins together, adding bills when they are ready. Students cannot solve word problems involving money (which is the goal) unless they have gone through all of the steps to learn how to count money. Those skills should be spread over the Primary Grades and begin in Kindergarten.		
11-14	Deborah Turner Petersburg WEST	After viewing the "new" standards it is evident that minimal changes were made to the math standards. I can only see where one standard was added! Disappointing. It appears that there are minimal changes being made. The name has changed but not the standards!		
11-16	Autumn Lee Technology and	This comment is for all standards. Teachers, students and parents are just now becoming familiar and comfortable with our current standards. Changing them		

	Curriculum Specialist Greenbrier County Schools Lewisburg WV	only signals to the public that we made a mistake adopting the NXG standards in the first place. With many areas having such a shortage of teachers or quality teachers, this will only escalate the problem with frustration. We need to stick with what we started and see it through for the benefit of our students.		
11-16	Janie Merendino Elementary Math Curriculum Specialist Harrison County Schools Clarksburg WV	Thank you for this revision to standards. I have been trying to get teachers to understand developing Mathematical Habits of Mind with students ever since the NCTM Process Standards came out. These College and career standards put this front and center. The chart of Big ideas per grade level is a good tool for teachers to help them organize their lessons. This format is easy to read as well.		
11-16	Phyllis Myers Retired Ronceverte Wv	M.3.7. Change the word from speed to fluent. Children should fluently multiply from understanding and memory one digit multiplication problems.		
11-16	Phyllis Myers Retired Ronceverte Wv	M.3.7. Change the word from speed to fluent. Children should fluently multiply from understanding and memory one digit multiplication problems.		
11-18	Karen Davies School Transformation Specialist Kanawha County Schools Charleston	Keep the current Next Generation Standards for mathematics. They are solid and reflect the hard work of qualified representatives. There is NO REASON to change them.		
11-18	Karen Davies School Transformation Specialist Kanawha County Schools	Keep the current Next Generation Standards for mathematics. They are solid and reflect the hard work of qualified representatives. There is NO REASON to change them.		
11-18	Karen Davies School Transformation	Keep the current Next Generation standards for mathematics. They reflect the work of qualified professional representatives. There is NO REASON to change them. To do so is meaningless and will be extremely costly.		

	Specialist Kanawha County Schools Charleston WV			
11-18	Anita Jarrett Teacher NCBOE Summersville WV	I would like to see some more Geometry in seventh grade, and perhaps a few less in probability (two more were added to this). Geometry Ideas: Intro to Pythagorean Theorem,		
11-18	Bob Morris Teacher cabell County Schools Barboursville wv	The standards are basically the same but they are easier to understand. They are more straight forward which makes for easier reading and understanding.		
11-18	Pam Hughes Teacher CMHS Cabell Co Ona WV	Reading through the standards -- I actually know what these mean. So much better. The first year we were so confused. We had to google things and finally find examples just to figure out what they wanted. So much better.		
11-22	Rebecca Wood Point Pleasant WV	Memorization of multiplication tables is as important as understanding how to reach these goals so it is good to see that in these standards. Good to see time and money concepts inserted in them also. Some things like these are vital skills for all in math.		
11-23	George I. Brown Pres, Gen Mgr The James & Law Co. Clarksburg WV	2520.2B Media reports say that, 'the WVBE recommends affording more local control to districts regarding choice of curriculum and instructional materials by allowing districts to select instructional materials that meet established criteria - rather than setting a list of approved instructional materials from which the districts may select a program for district-wide use'. This path ignores several advantages that the current selection system affords our district, students, and taxpayers. Though more local control over curriculum selection is a laudable goal, dismantling the current selection system will come at a high cost. First, if every district must establish a committee of teachers and local stakeholders each year to determine whether or not the programs being offered by publishers/vendors meet the established criteria, the work now being accomplished by the state adoption committee will be replicated fifty-five times, by each district		

		committee. There is a direct, local payroll expense associated with such redundancy. And, given the subjective nature of these evaluations, there is the distinct possibility that one district committee will approve a given program, while a neighboring district committee will not. What then? What body will have the final say? Currently, the state adoption committee makes the initial evaluation of a program. Any disputes regarding the outcome of that evaluation are dealt with at the state level. And then the county adoption committees are free to review all state-approved programs, and select the one each feels will provide their students and teachers with the greatest success. Second, the current system of district-wide program selection should be retained, for two reasons: a) district level selection (vs by-school selection) assures that students who must move from one school to another during the school year are assured of continuity of instructional materials, rather than finding themselves at a disadvantage due to having to pick-up instruction in a completely different program, and b) district level selection assures the district and its constituents (the taxpayers who ultimately fund the school system, that any economies of scale available in the purchase of said program(s)are being taken advantage of. And last, West Virginia is a very small market, when one compares our student population to that of other states. For instance, we have fewer K-12 students than Atlanta-Fulton County, GA, or Miami-Dade County, FL, just to name a few. My experience, as a materials distributor, is that materials are (from a business standpoint) reasonable designed for those types of markets, in those populous states. The recent introduction of state-specific materials makes those materials, for low census states such as ours more possible than ever. But, the costs of state-specific materials are still higher than those of national programs, and the willingness of publishers/vendors to produce such programs is not assured. So if we get too far from the national programs, we will find ourselves with fewer program options, at premium prices.		
11-24	tony nichols Federal Programs Nicholas County Summersville WV	The committee suggested adding "identify coins" in Kindergarten; "know values of coins" in First Grade to make it easier on second grade teachers and students when they begin working with money. Solving word problems with money in 2nd grade is a large step without some background building. Some calendar aspects such as days, months, etc could be added to the		

		kindergarten standards for measurement. Several Kindergarten teachers have requested that patterning and graphs be put back in the standards. I have no problems with fact fluency by 3rd grade, although I believe they were already in the previous set of standards.		
11-25	Suzanne Teacher charleston wv	As a whole, the standards for kindergarten are not much different from the current standards for both Reading and Math. To me, it seems like an enormous waste of resources. We have invested so much time and money into the new standards as they are, and have not given them adequate time to show their effectiveness. Instead of throwing out the current standards, it would be more beneficial (and cost effective), to examine some of the programs being used such as Everyday Math in Kanawha County. We also need to educate the public about what the Common Core Standards are. I believe they are and make sure that they understand that these standards drive the instruction. The programs that a particular county chooses to use mandates the delivery of these standards to the students. It seems to me that more parents have come to associate "the common core" with confusing methods such as lattice multiplication, which are in Everyday Math. They need to understand that changing to new standards will not make such programs go away.		
11-27	Jane Kennedy Assistant Principal Riverside High School Belle West	M.A1HS.15, M.A1hs.18, M.A1HS.44 & M.GHS.24, M.GHS.44 The above standards are not object. "Understand that the graph of an equation..." "Understand that a function..." "Understand that polynomials..." "Understand and apply the Law of Sines,,,: "Understand..." How will the students show their understanding? Will they explain, describe, analyze a graph?		
12-02	Jan McNeel Owner Kids First Educational Consultant Hillsboro WV	M.3.5, M 3. 6, M. 3.7 The ability to complete higher mathematical equations rests on the foundation of 3rd grade automaticity of multiplication operations. It is appropriate this rigor be implemented in every school in WV. Provide the necessary staff development to make this happen using fun activities and movement.		
12-04	Kathryn Alam Teacher Suncrest Middle	I would like to point out that the new numbering system for the standards is not as informative or clear as the old system. I think identifying which domain (geometry, number sense, expressions and equations, etc) being listed with the		

	School Morgantown WV	standard is extremely important. I know this may seem minor but from a classroom teacher who uses these everyday day do drive instruction these are critical. I feel these are most necessary when it comes to assessment. You are adding an extra step to make a teacher look up which domain a â€œnumberâ€ falls under instead of just telling us which domain when stating the standard. I really hope consideration is given to this considering in 6th grade math, what I predominately teach, this is one of the ONLY changes, and I really feel like it does not benefit the teacher or student so I truly cannot understand why it was done. There are 29 standards I am responsible for teaching, and I do not think it should be expected for me to know where each of these standards fall without having the domain indicated in the numbering system. Thank you for your consideration.		
12-08	Monique Bucklen special education teacher Nitro High School Charleston WV	The standards do not ,provide an appropriate track for special education, average or below average students. The upper level students are also slighted because content previously taught in 6 courses has been condensed to 3 courses. The standards for Algebra, Geometry and Algebra 2 have not changed, the only differences are the naming and rewording of common core standards. If the intention is for all students to be college and career ready, then there should be an appropriate pathway ascertained when the student is in middle school or early high school so that the math courses can reflect the career goals determined by the parent and student. This means that not all students should be required to enroll in the same math courses in order to receive a high school diploma. Math courses should be reflective of the career aspirations, diversity of abilities and individual talents of students. Students mature cognitively at different rates and this pathway does not allow for differentiation and assumes that all students are the same based on grade level. The expectations may cause greater student apathy and drop out rate. Special education students will be overwhelmed and less likely to graduate. There are 61 Algebra 1 standards. The pace required to teach all standards is too intensive to be covered in the 180 school days if mastery is the expectation. There is no time built in for reteaching and remediation or testing.		
12-08	Ryne Eich Math Teacher Nitro High School Nitro WV	The standards for Algebra 1, Geometry, and Algebra 2 have not changed. The only differences are the naming and rewording of common core standards. If the intention is for all students to be college and career ready, then there		

		should be an appropriate pathway ascertained when the student is in middle school or early high school, so that the math courses can reflect the career goals determined by the parent and students. This means that not all students should be required to enroll in same math courses in order to receive a high school diploma. Therefore all students are not the same and should not be in the same cookie cutter courses. Students mature cognitively at different rates and this pathway does not allow for diversity of instructions and assumes all students are the same based on grade level. For example there are 61 Algebra 1 standards. The pace required to teach all standards is too intensive to be covered in the 180 school days if mastery is the expectation. There is no time built in for reteaching,remediation, and testing.		
12-09	Melissa Kuhl Math Teacher Roane-Jackson Technical Center Millwood West	I reviewed the standards for the two courses I presently teach. Math III (High School) and Transition Mathematics for Seniors. I was not surprised to see that except for an occasional change of wording, that the standards and objectives were essentially the same as the current NxGen standards or WV's version of Common Core. I find it very disappointing that the 'spin' on says that this round of 'new' standards is moving the state away from Common Core. I find it very disappointing that state leaders would mislead the citizens of WV in this way. When the 'new' standards are adopted and students, teachers, and/or parents still have the same complaints, the system of education will look quite foolish. Instead of 'bowing' to political pressure to move away from Common Core by adopting 'new' standards, we should be explain why teachers and/or educational leaders want to keep Common Core. Instead we are wasting time, energy, and money to prepare and adopt a 'new' set of standards. Yes I admit that I have not reviewed all math standards in all grades, but still find it ridiculous that the state educational system is trying to 'pull the wool over the eyes' of the citizens of this state by passing off 'new' standards that are almost carbon copies of the old Common Core standards.		
12-09				

	Susan Barrett School Improvement Coordinator Nicholas County Schools Summersville WV	Mathematical Habits of Mind (Standards for Mathematical Practice) - Al Cuoco, Paul Goldenberg, and June Mark introduced the concept of mathematical habits of mind in The Journal of Mathematical Behavior (15, no. 4 [1996]). These are not the same as the MHM in the proposed standards. The proposed standards simply rename the Standards for Mathematical Practice from the Common Core State Standards as the Mathematical Habits of Mind. Isnâ€™t this a violation of copyright of both documents? Suggestion: Keep the Standards for Mathematical Practice as written. Apparently there is no objection to their content. K-5 Narrative Introduction â€“ A sentence in the opening paragraph states, â€œMathematical process goals, or habits of mind, include: reasoning abstractly and quantitativelyâ€¦.â€ The first Standard for Mathematical Practice, labeled as Mathematical Habits of Mind in this document, has been omitted. It states, â€œMake sense of problems and persevere in solving them.â€ This is the most fundamental of the practices and should definitely be included at all grades. There is no reason to refer to the MHM/SMP as mathematical process goals in this section, using a third name for the same set of standards. Organization of Standards â€“ The charts of â€œskills progressionâ€ at the beginning of the grade-level standards are confusing. The bulleted items are sometimes cluster-level statements given verbatim from the NxG/CCSS standards, other times these cluster statements are paraphrased, while other items are at the objective (now called standard) level. In several instances, a bulleted item is not referenced at all in the standards that follow. In other cases, the statement in the skills progression conflicts with the standards that follow. Specific examples of these issues are given in the comments at each grade level. The charts listing the clusters that immediately follow the skills progressions charts are clear, concise, and sufficient. Eliminating the skills progressions would be an improvement. Numbering â€“ The vast majority of standards (objectives) are the same as the NxG/CCSS and		

the domains and clusters remain the same as well. Numbering the standards in each grade level consecutively rather than using the domain-related labels makes it more difficult to see the connections in content from one grade to the next. The introduction to the new standards states that they â€œreflect a progression and key ideas determining how knowledge is organized and generated within the content area,â€ yet this renumbering obscures that organization and â€œdeeper structures inherent in the discipline.â€ This is not an improvement and does not clarify anything!

Instructional materials have been aligned to the NxG/CCSS numbering system. This applies to materials already adopted as well as newer instructional programs from all publishers. Renumbering makes this alignment unnecessarily difficult to follow.

This numbering also makes it more difficult for teachers to locate and identify additional resources related to the content of the particular standard. For example, a teacher can Google 2.NBT.3 lessons and get a wealth of resources. A search for M.2.7 lessons will turn up nothing.

Kindergarten Skills Progressions â€“
The Operations and Algebraic Thinking skills progression is given twice. The skills progression for Number and Operations in Base Ten is missing.

Kindergarten â€“ Skills Progressions â€“ Operations and Algebraic Thinking, Measurement and Data, Counting and Cardinality
Three of the statements do not convey the same meaning as the standards that follow them and are NOT ACCURATE MATHEMATICALLY. Specifically, â€œCount objects to tell how many there are by ones and tensâ€ incorrectly combines two standards. M.K.1 refers to a counting sequence, not counting objects. The counting sequence is what students say when counting by tens. M.K.5 clearly states that students will count objects and answer questions about as many as 20 objects. This is about 1-to-1 correspondence and cardinality and is not related to counting by tens. (See M.K.4)

Under Measurement and Data, the statement is, â€œClassify objects and count the number of objects in each category.â€ The example given is, â€œSort and

classify pennies into groups of 5s or 10s.â€ That example is NOT sorting and classifying. What M.K.16 refers to is sorting a group of objects, like buttons, into categories, like color or number of holes, and then counting the number of buttons in each category.

Under Counting and Cardinality, one statement is, â€œGroup pennies.â€ This does not relate to anything listed in the standards that follow; grouping pennies is not related to counting or cardinality, and the statementâ€™s meaning is not clear. What learning purpose is there in grouping pennies?

Kindergarten- Measurement and Data â€“
There was a recommendation from the Academic Spotlight Committee to add identification of dollar bills and coins in kindergarten, but this has not been done. Suggestion: Add a standard under Measurement and Data to address this recommendation. The two new standards that mention pennies do not address coin recognition or counting pennies, the very things that should be addressed in kindergarten.

Grade 1 â€“ Skills Progressions â€“ Number and Operations in Base Ten
There was a recommendation to add knowing the value of pennies, nickels, dimes, quarters, and dollar bills, but this has not been included in the proposed standards. Under Number and Operations in Base Ten, the last bulleted statement says, â€œSort and classify pennies, nickels, and dimes into groups of ten.â€ There are several problems with this. First, sorting and classifying objects belongs under Measurement and Data. Second, sorting coins into groups of ten serves no useful purpose â€“ unless students know the value of each coin and are counting a group of coins to find the total value. Third, this is the only mention of money in the standards for first grade. How can it be important enough to list in the chart at the beginning of the grade and then not mentioned in the standards themselves? The recommendation of the review committee has not been addressed. Suggestion: under Measurement and Data, add a standard saying, â€œKnow the value of pennies, nickels, dimes, and quarters and find the value of a group of pennies, nickels, dimes, or quarters with a total value up to $1. (Finding the value of a mixed group of coins could be addressed in grade 2, as this is a more difficult skill.)

		Grade 1 â€“ Skills Progressions â€“ Number and Operations in Base Ten The second bulleted statement would be more aligned to the standards that follow if it included the entire wording from the cluster. It would then say, â€œUse understanding of place value and properties of operations to add and subtract.â€ Grade 1 â€“ Skills Progressions â€“ Operations and Algebraic Thinking The wording in the second part of this skills progression states, â€œAdd quickly and accurately with a sum of 10 or less and quickly and accurately subtract from a number 10 or less.â€ This does not align with standard M.1.6, which asks students to â€œdemonstrate fluencyâ€ and â€œuse strategies such asâ€¦.â€ The emphasis in the standard is not on speed but on mastering strategies that demonstrate flexibility with numbers. Emphasizing speed over understanding is a step backward. The second grade standard requires students to â€œknow from memoryâ€ the single digit addition sums; let that wait until second grade to give time for understanding to develop. For reference, see former NCTM President Linda Gojakâ€™s article http://www.nctm.org/News-and-Calendar/Messages-from-the-President/Archive/Linda-M_-Gojak/Fluency_-Simply-Fast-and-Accurate_-I-Think-Not!/ There was no recommendation from the committee on this topic. Apparently the majority of people who teach this and understand the mathematical framework of the standards did not have a problem with the standard as written.		
12-10	Susan Teacher Begunich Morgantown WV	To teach students skills and competencies essential for success.		
12-10	Susan Barrett School Improvement Coordinator Nicholas County Schools Summersville WV	Grade 2 â€“ Skills Progressions â€“ Operations and Algebraic Thinking â€“ Examples would be more appropriately given at the standard level. These skills progression statements are too broad for an example to convey the meaning of the standard. For example, the first bullet gives an example of a one-step problem. This would be more helpful under M.2.1, especially if an example of a two-step problem was also given. Grade 2 â€“ Skills Progressions â€“ Operations and Algebraic Thinking â€“ The second bulleted statement uses â€œquickly and accuratelyâ€ instead of		

â€œfluentlyâ€ as stated in M.2.2. The last part of the statement already says, â€œknow all sums of one-digit numbers from memory by the end of second grade,â€ so the first part seems redundant. There was no recommendation from the committee regarding this topic.

Grade 2 â€“ Skills Progressions â€“ Measurement and Data â€“
The second bulleted statement needs more detail; it just says, â€œTell time.â€ Standard M.2.20 calls for students to tell time â€œto the nearest five minutes.â€ Telling time to the minute is a third grade standard (M.3.16).

Grade 2 â€“ Skills Progressions â€“ Measurement and Data â€“
The third bulleted statement says, â€œCount money.â€ This does not align with the only second grade standard that relates to money (see M.2.21). Perhaps adding another standard to the cluster about time and money before M.2.21 would be the best solution.

Grade 2 â€“ Skills Progressions â€“ Number and Operations in Base Ten â€“
The second bulleted statement has two parts that cause concern. Part of the cluster was omitted â€“ it should say, â€œUse place value understanding and properties of operations to add and subtractâ€ to align with what follows. The second part of the statement does not match the standards for second grade. There is no emphasis on speed of calculation at this grade level â€“ see standards M.2.1, M.2.9, M.2.10, M.2.11, M.2.12, and M.2.13. The standard algorithms for addition and subtraction are in the standards for grade 4. To say that second graders should â€œadd and subtract two-digit numbers quickly and accuratelyâ€ does not align with the expectations in the standards that follow. There was no recommendation from the committee regarding this topic.

Grade 2 â€“ Skills Progressions â€“ Geometry â€“
The first bulleted statement says, â€œâ€¦to develop foundations for area, volume, and geometry in later grades.â€ There is nothing in the second grade standards that follow which relates to volume. Work with volume begins in fifth grade.

Grade 2 Measurement and Data â€“ M.2.15 â€“
There is a typo in this standard. It should end after â€œâ€¦size of the unit chosen. â€ The rest of the sentence must have been accidentally copied and pasted from a

		geometry standard. Delete â€œand compare and contrast plane and solid geometric shapes.â€		
12-10	Blaine Hess Superintendent Jackson County Schools Ripley WV	I support the approval of the WV College and Career Readiness Standards for Mathematics. The approval of the standards reflect support for the work and recommendations of the Academic Spotlight efforts over the past several months. It is crucial that our state standards be firmly established so that teachers will have clear standards upon which to base instruction. The uncertainty and turmoil of the standards debate must be put to rest for the good of the students in West Virginia.		
12-11	Susan Barrett School Improvement Coordinator Nicholas County Schools Summersville WV	Grade 3 - Skills Progressions â€“ Operations and Algebraic Thinking â€“ Regarding the first bulleted item, if a student can â€œmultiply and divide up to 10 x 10 fluently and accuratelyâ€ there is no need to â€œknow the times tables from memory.â€ Fluency is defined as being accurate, efficient and flexible with numbers. Fluency is arrived at through understanding and practice. Memorizing a table of numbers does not require understanding. Standard M.3.7 states, â€œBy the end of grade 3, know from memory all products of one-digit numbers,â€ and that is more clear than this statement in the Skills Progression. There was no recommendation from the committee on this topic. Grade 3 â€“ Skills Progressions â€“ Number and Operations - Fractions There is a typo in the statement. It says, â€œUnderstand fractions and relate them to the familiar system of while numbersâ€¦â€ and it should say, â€œUnderstand fractions and relate them to the familiar system of whole numbers.â€ Grade 3 â€“ Skills Progressions â€“ Geometry The third bulleted statement does not make sense mathematically. If this refers to the connection between geometry and fractions, then the statement needs to say something about equal parts. Parts of a shape are not units of a whole. Grade 3 â€“ Number and Operations â€“ Fractions There should be a note with the cluster title that at this grade level, expectations â€œare limited to fractions with denominators of 2, 3, 4, 6, and 8.â€ This was in the original standards and is important to note.		

Grade 3 â€“ Number and Operations â€“ Fractions â€“ M.3.14
M.3.14 The examples for parts a and b do not clarify the meaning of these standards. The example for part b is particularly problematic as it does not align with the meaning of the standard. The standard is about iterating intervals of a given length. One of these intervals is 1/b; the sum of a lengths of 1/b would be a/b.

Grade 4 â€“ Skills Progressions â€“ Operations and Algebraic Thinking
There are two statements in this box that belong in Number and Operations in Base Ten: â€œAdd and subtract whole numbers quickly and accurately (numbers up to 1 million)â€ and â€œMultiply and divide multi-digit numbers in simple casesâ€¦.â€ These statements are about specific computational expectations rather than generalized rules for operating on numbers. Since the cluster statement about performing multi-digit arithmetic is already given in the Number and Operations in Base Ten box, these additional statements are unnecessary. The specific details are in the standards that follow.

Grade 4 â€“ Skills Progressions â€“ Number and Operations â€“ Fractions
The first statement does not make sense mathematically. You donâ€™t order equivalent fractions â€“ they have the same value. Why not just use the cluster statements as written, as is done in the chart with the renumbering of the standards? The examples here are not necessary; the specific details are in the standards that follow.

Grade 4 â€“ Skills Progressions â€“ Geometry
The second statement belongs in the Measurement and Data section, not Geometry. See the standards that follow â€“ angle measure is the last cluster there. The statement should read, â€œMeasure angles and find unknown angles in a diagram.â€ (not finding unknown angles)

Grade 4 â€“ Measurement and Data â€“ M.4.21
The rewrite of M.4.21 combined two sentences and changed the meaning of the standard. This could be fixed by using the original wording or helped by saying, â€œâ€¦mathematical problems, including viewingâ€¦.â€

Grade 5 â€“ Skills Progressions â€“ Number and Operations â€“ Fractions

		The cluster titles were more clear and concise than these new statements. Examples belong in the standards that follow the charts. Grade 5 â€“ Skills Progressions - Measurement and Data â€“ The second statement is one of the standards rather than a cluster. It could be made more concise by saying, â€œMake a line plot to display a data set with fractional units of measure and interpret the data to solve problems.â€ Grade 5 â€“ Chart with Cluster Titles The clusters listed under Geometry are from a Math IV course option â€“ Advanced Mathematical Modeling â€“ rather than fifth grade Geometry. Grade 5 â€“ Number and Operations â€“ Fractions â€“ M.5.14 The wording of the standard is the same as before but the use of italics has not been carried over. This makes the meaning of the statement harder to understand, particularly in the first sentence, where it says, â€œInterpret the product (a/b) x q as a parts of a partition of q into b equal partsâ€¦â€ With italics it says, â€œInterpret the product (a/b) x q as a parts of a partition of q into b equal partsâ€¦.â€ (I have underlined where the italics should be in case the formatting doesnâ€™t carry over.) Grade 5 â€“ Geometry Both cluster titles are incorrect. These are from Advanced Mathematical Modeling, not fifth grade.		
12-11	Brad Moreland Math Teacher Nitro High School Nitro WV	These standards are a rewording of the Common Core standards. There is no actual difference between these standards and the standards under Common Core. If the goal is to replace Common Core, this is a failure. These High School Standards do not work for High School. This is not a good system for any student. For special ed and lower level students, they are now expected to go through the equivalent of what used to be precalculus. These are students do not need that level of math knowledge and are, quite frankly, not capable of doing that in the time allowed to learn it. This system will have unsuccessful, frustrated students. Staying this course will lead to a lower graduation rate and higher drop out rate.		

		For the middle of the road students and higher students this is still a problem. The standards in Math I, II and III, or Algebra 1, Geometry, and Algebra 2 were once 6 classes. That means that those 6 classes are now 3. For the middle of the road students that means that there is less time to teach the students the standards. I can teach all the standards in Algebra 1 in the time allotted to do so, but that doesn't mean the students can comprehend it in that time. Under the current (and this system) to get in all the standards for Algebra I, there are units that have to be taught in 3 days. A whole 3 week unit in 3 days, and that doesn't even factor in days for testing. For the higher level students this condensation of time means that the students are not getting the depth of knowledge that they used to. Furthermore, project based learning has been proven to be an affective learning tool, but there is no time for it with these standards. In conclusion, no group of students benefits from the standards as they are written in here. The standards should be spread out between more classes so students can succeed to their highest potential.		
12-13	Joanna Burt-Kinderman District Math Coach Pocahontas County Schools Hillsboro WV	I appreciate the chance to regularly take stock of how WV's standards are (and are not) working in classrooms. I am grateful to have had the opportunity to participate in this review, and am certain that the standard revisions in high school math will benefit all teachers and students, as they arose out of consensus of the group of teachers engaged in the review. That said, there is still an outstanding issue for high school math that doesn't affect any other grade band or subject. Because the high school math standards offer two pathways, there is more opportunity for confusion. I would like the board to consider an additional revision: Ensure that similar standards across courses are named similarly, to ease resource sharing across the state and despite choice of pathways. Right now, the following four codes for standards in Math I 8, Math I, Algebra I 8 and Algebra I all refer to the EXACT same standard. I believe that they should have the exact same code. Mi.HS8.33, M.IHS.28, M.A18.10. If a teacher, parent or student wanted to find related content to study on ACT, SAT or Khan Academy, they would need to search for REI.B3. Anything we can do to streamline and simplify the naming and numbering of high school math standards will benefit teachers, parents, and students in WV.		
12-14	Dennine LaRue Temporary	M.1HS.3 through 51 The geometry content standard are reasonable. M.2HS.39 through 61 These geometry content standards will help make the		

	Assistant Professor of Mathematics Fairmont State University Fairmont WV	connection with algebra equations and transformations which are emphasized in higher education classes such a college algebra. M.2HS.42 and 43 This has been missing in WV content standards for quite some time and it is important for higher education math classes. M.GHS.1 through 55 I feel this is a better approach to teaching the geometry concepts rather than having them in the integrated approach. Not all teacher will be proficient at teaching Euclidean geometry with a transformational approach. This approach actually relates algebra and geometry and I fully approve of this approach.		

From: Janie Merendino
Sent: Monday, November 16, 2015 11:28 AM
To: Cynthia Burke <caburke@k12.wv.us>
Subject: comment on WV College and Career rediness Standards for Math

Good Morning Cindy, I just finished reviewing K-5 math standards and I am thrilled with the version! How long have I been referring to developing mathematical Habits of Mind with our WV elementary students? I know it has been ever since I started teaching and kept referring to the NCTM Process Standards that teachers were not aware of! Maybe now with this version we can get to where we need to be. I love the opening introduction with reference to how using a mnemonic devise " to do" math does not mean the child " knows math". I like the BIG IDEA chart for each grade. My only thought for a change would be to include the words " when multiplying …." to 3rd grade in section NOBT and " when dividing" to 4th grade NOBT. Here is where I struggle with teachers- getting them away from teaching that standard algorithm right off the bat in 3rd grade when they introduce 2 digit times one digit multiplication and use of that standard algorithm when intro division with a 3 digit dividend ! Thanks for reading and continue the good work!

Janie Merendino
Elementary Curriculum Specialist
Harrison County Schools
408 E.B. Saunders Way
Clarksburg, WV 26301
304-326-7313

From: Terri Walker
Sent: Tuesday, November 17, 2015 12:55 PM
To: Cynthia Burke <caburke@k12.wv.us>
Subject: Common Core Repeal????

Ms. Burke,
I am an 8th grade math teacher in Monroe County and was thrilled to hear the plan to repeal the Common Core Math Standards! Many of the standards are what I taught when I was teaching at the high school level and are way above the ability of the "Normal" hard working 8th grade student, much less the special ed students I have. I may be mistaken and truly hope I am, however in reading the 8th grade standards in policy 2520.2B there were absolutely NO CHANGES with the exception of the standard number. The wording is exactly the same. How does this "repeal" help me and my students? I have been teaching math for 25 years and consider myself to have very high standards and expectations but these standards are unrealistic for an 8th grade student. Am I wrong about the 8th grade math standards being the same with exception of the standard number? Please advise.
Sincerely,
Terri Walker

PS. Is this e-mail considered being placed on public comment? If not, where and how do I post my opinion on public comment?