

2024 MCAS Mathematics Elementary Constructed Response Webinar Transcript

Slide 1 – Webinar Title

Welcome to our presentation on the Scoring of Elementary MCAS Constructed Response questions. My name is Mary Lou Beasley, and I am part of the MCAS Mathematics Test Development Team at DESE.

Slide 2 – Agenda

During this presentation, I'll review the test development and the scoring processes. I'll provide an overview of how questions are created, reviewed, field tested, and scored.

Then, I'll review two elementary MCAS constructed response questions that were previously released. I will also review samples of student responses at each score level, and then I'll allow you to independently score some student responses. At the end, I'll share some online MCAS resources that are available to you, your students, and their families.

Slide 3 – Life Cycle

Before I review the constructed response questions, it is important for you to have an understanding of how questions, which we sometimes refer to as items, end up on an operational MCAS test. An operational question is a question that counts towards the student's score and has already been through a process that we call the Life Cycle of a MCAS Mathematics Question.

As you can see, there are many steps to getting a question onto an operational MCAS test. An important part of this process is the fact that teams of current educators, and content experts from various districts are included at multiple points in the process to share their suggestions on ways to refine the questions. This is something that our state is very proud of, as not all states have educators involved throughout their test construction process.

We have two educator committees - the Assessment Development Committee or ADC (in the grey boxes) and the Bias and Sensitivity Committee or BSC (in the blue boxes) that you can see each review the questions twice within the life cycle.

There is an Assessment Development Committee for each grade level and content area and a Bias and Sensitivity Committee for grades 3-10. Both committees are tasked with ensuring that the questions on the MCAS tests are grade-level appropriate, accurate, and aligned to the Massachusetts State Curriculum Frameworks and free from bias.

Let's review this process.

The questions are first submitted to DESE from the MCAS testing contractor. Once received, test developers at DESE will review each question before they are brought to the ADC for review. As mentioned earlier, the educators on the ADC review the questions for alignment to the state standards, grade-level appropriateness, etc. At the ADC meetings, questions are edited as

needed, based on educator feedback. Questions can be accepted as is, accepted with edits or rejected. All questions that are accepted or accepted with edits are then reviewed by members of the BSC. The BSC then reviews the questions to identify and make recommendations for any bias or sensitive concerns. At the BSC meetings, questions are edited as needed, based on feedback. Questions can again be accepted as is, accepted with edits or rejected.

Questions that are cleared to move forward, in the process, are moved to a Field Test Eligible Bank. Any question in this Bank can be selected to be field tested during any given test administration. However, before the questions are included on the MCAS test for field testing, they are reviewed for content and grammar by content experts from higher education as well as editorial staff from both DESE and the testing contractor.

Once the questions are field tested during Test administration (green box), the test is separated into operational and field test questions. The operational questions that count towards the students' scores are scored and the results are sent to the districts. Multiple choice and technology enhanced field test questions can be machine-scored, but the constructed response field test questions enter the next part of the cycle known as Benchmarking where samples of student work are reviewed and compiled in preparation to train scorers. I will explain this process in depth in a later slide. Once the student responses are benchmarked, they are then scored by hundreds of trained scorers, and the data for all field test questions are forwarded to another meeting with both the ADC and the BSC for review.

The ADC and the BSC then review the data for each field test question using parameters provided by DESE such as determining if a question was too difficult and/or if a question was not accessible to students at all levels. Questions are either accepted or rejected at these meetings. Rejected questions can be field tested again with edits at the recommendation of the ADC or the BSC. Accepted questions cannot be edited and are then moved to a Common Eligible bank which means that they can be used as an MCAS operational question where they count towards a student's score.

From beginning to end, this process takes about two years, and as you can see, educators play an integral role throughout the process.

Slide 4 – Constructed Response Questions

Unlike selected response and short answer questions, students can write, show, and/or explain their strategies used when answering constructed response questions.

MCAS constructed response questions are made up of multiple parts and are typically scaffolded to make the question assessable to all students. Students must answer all parts correctly to receive full credit. Responses are scored holistically, based on their understanding of the standards from 0 to 3 points in grade 3 and 0 to 4 points in grades 4 and 5.

Slide 5 – Things to Know

In constructed response questions, students do not lose credit for spelling, grammar, and punctuation. Student responses need not be complete sentences. If a question asks a student to

find the perimeter of a figure, and the student correctly finds the perimeter and the area, only the perimeter will be scored. Any information not related to what is being asked is ignored.

In some of the sample student responses that you will see in later slides, you will learn that students can use an incorrect answer from part A correctly in subsequent parts and receive credit in those parts. That is, students can receive credit for correctly solving part B with an incorrect answer from part A.

Students may receive 0 to 3 points in grade 3 and 0 to 4 points in grades 4 and 5. All assigned scores are whole number points. A student will never receive a score, for example of 2.5.

Students can respond to constructed response questions in multiple ways. One student may choose to show all their calculations, while another student may choose to explain step by step how they determined their answer.

Slide 6 – Benchmarking Process

I referenced the Benchmarking process in my review of the Life Cycle of an MCAS Mathematics question. Once test administration is completed, hundreds of student responses for the field test constructed response questions are gathered and sent to test developers at DESE and the testing contractor. Each test developer reviews the responses, and scores them ahead of a Benchmarking meeting. At the meeting, the scores along with all the various strategies demonstrated by the students are discussed and compiled to create training materials that will then be used to train scorers.

The training materials consists of the question, the scoring guides, student work that show a range of scores and types of calculations, computations and explanations, detailed instructions that are referred to as scoring notes on how to score student responses, and notes on how to distribute points.

Slide 7 – Scoring Process

The scoring process is thorough and rigorous.

All MCAS scorers must have content expertise and cannot be Massachusetts educators. Scorers are trained or instructed on the grade level question that they would score. That is, if a scorer is trained to score a specific grade 4 question, that does not mean that they can score **all** grade 4 questions.

Each question has a specific set of training materials, some of which you will see today. Scorers must qualify to score each question before they can score what is called ‘live’ student responses. To qualify, scorers must demonstrate that they understand the expectations at each score point by accurately and consistently scoring on two rounds of practice responses. If scorers do not qualify to score a question, they cannot score any ‘live’ responses for that question.

To ensure continued accuracy during live scoring, many responses are scored by more than one scorer. Scorers are also continuously monitored using measures such as read behinds and embedded responses. A read behind is when a member of scoring leadership reads a response after a score has been submitted. Embedded responses are like field test questions. They are student responses that have already been scored that are embedded in the student responses that scorers are scoring. Scorers do not know which responses have previously been scored. If scorers fail to adhere to the standard and overall expectations that have been set, they are coached or retrained and given a second opportunity to score the same question. If they fail a second time, after being retrained, they are excused from scoring the question and all their previously scored responses are returned to the scoring pool to be scored again.

For live scoring, scorers are provided with the question.

- They review the sample response which includes possible responses that students might include.
- They review the scoring guide which articulates expectations at each score point.
- They review student responses for each score point, and
- They review scoring notes that were created during the Benchmarking process.

I will begin to explain these components in the next few slides.

Slide 8 – Instructions to review Question 1: 5-MD.C.5 (Released 2023)

Let's review the first constructed response question. This question is a grade 5 question aligned to the Measurement and Data domain and was released in 2023.

First, I will review the question, along with the sample response, the scoring guide, the scoring notes, and student work responses at each score point, and then you can review and practice independently scoring some actual student response responses for this question.

Slide 9 – Question

This Grade 5 question assesses 5.MD.C.5 dealing with volume and begins with a diagram of a block with its dimensions labeled.

Part A asks for the volume of the block, and we see in the diagram that each edge of the block is 2 inches in length.

Part B asks for the volume of a carton that the blocks are being packed into. It gives the Base Area of the carton as 240 square inches and the height of the carton as 12 inches.

Part C asks for the greatest number of blocks that will fit into the carton. We need to go back to Part A and remember that each block has a volume of 8 cubic inches. Then we need to figure out how many times 8 cubic inches will fit into 2,880 cubic inches so we divide 2,880 by 8.

Part D asks for possible dimensions of a larger carton that will hold exactly 1,000 of these blocks. First, we have to find the volume of this new carton that will hold exactly 1,000 blocks

that each have a volume of 8 cubic inches. Then we have to determine a length, a width, and a height that will multiply to give us that volume. Most importantly we have to consider that the blocks have a 2-inch edge length, so all of the dimensions must be *even* numbers.

Slide 10 – Sample Response

This is the Sample Response used to score the Student Responses. It's the “starting point” for scoring a constructed response question. When writing the Sample Response for a question, we use what we think will be a “common” student response.

Many times, there are multiple ways to arrive at the correct answer. We generally ask students to “show or explain” how they got their answer, and we will accept any answer that is correct.

- In Part A, we were looking for $2 \times 2 \times 2 = 8$ cubic inches.
- In Part B, multiplying the Base Area of 240 by the height of 12 gives the volume of 2,880 cubic inches.
- In Part C, dividing the volume of the carton found in Part B (2,880) by the volume of one cube found in Part A (8) gives the number of blocks that will fit in one carton.
- In Part D, many students included the step of multiplying $8 \times 1,000$ to figure out that the volume of this larger carton is 8,000 cubic inches. Then, they would come up with three even-number dimensions that multiply to give a volume of 8,000. We didn't require that step to be written if we could see the “8,000” in their response.

Slide 11 – Scoring Guide

Each constructed response question includes a Scoring Guide. The scoring guides for each question differ from others in only a few places, as highlighted on this slide.

Most Scoring Guides have a second 4-point sentence (3-point in grade 3), which is unique to the question. On this slide, the extra sentence is underlined in red. This sentence describes what the student who received four points on this question did to accumulate those points.

Each score point also contains a statement that includes the standard, or parts of the standard that are assessed in the question. On this slide, the standard wording is underlined in green.

The domain, circled in blue, also appears in each score point. In this question, the domain being assessed is Measurement and Data. You will also notice that the scoring guide categorizes the responses with the terms exemplary, good, fair, minimal, and “insufficient evidence of an understanding” to differentiate between the different scores the student may achieve.

Slide 12 – Scoring Notes

Another tool that scorers use is a set of Scoring Notes. The scoring notes are developed during that Benchmarking process that I mentioned earlier.

After looking at many, many student responses, a group of Test Developers from DESE and our contractor compile these notes. It gives the scorers clarification on what we will accept or will not accept as correct answers.

The Scoring Notes help to make the scoring more “black and white” rather than having any “gray” areas where the scorer may be unsure of how to score.

Part A shows what we need to see for full credit and defines what would be included in an “answer only” in addition to just the answer, 8.

Part B shows what is needed for full credit and defines what would be included in “answer-only” in addition to just “2,880.” We may see an answer that has the correct problem with an incorrect product. This is what we call a “computation error.” Since this standard is *not* a “computation” standard and is more of a “problem solving” standard, we are looking to see if the student demonstrates the knowledge of HOW to solve the problem. We chose to overlook a computation error here as long as the student showed the correct multiplication to solve the problem.

Part C The answer here can be correct based on an incorrect answer in Part A or Part B: for example, if the student answered “6” in Part A (instead of “8”) but then showed dividing 2,880 by 6 correctly to get 480, we would give them credit for the correct process used in Part C even though it resulted in an incorrect answer because they used their incorrect answer from Part A. They’ve already lost credit for their answer in Part A, so we don’t want to penalize the student twice if they showed the correct strategy in Part C.

Part D: Again, this answer can be correct based on an incorrect answer from Part A. We also have some parameters for “answer-only” credit as shown here. We feel that if the student has the correct answer, then they must have done the correct work on their response. The student can’t be given full credit for an “answer-only” if we asked for work or explanations to be shown so we look at the answer-only responses along with how they did on the rest of the response to come up with a final score.

Again, trying to make it as easy as possible for scorers to stay consistent with their scoring. Now we will walk you through a set of Training Responses that show an example of a student response at every score level. You will use these responses later to score the practice responses.

Slide 13 – Score: 4

This is an example of a 4 score.

Part A: This response shows that $2^3 = 8$ for correct answer with work shown (we don't deduct credit for incorrect units).

Part B: This response shows the correct answer with work shown.

Part C: This response shows the correct answer with work shown.

Part D: This response gives a set of correct dimensions and then shows how they verified that those dimensions do give a volume of 8,000 which they need to figure out based on 1,000 blocks each with a volume of 8 cubic inches.

This response earned a score of 4 for all parts correct.

Slide 14 – Score: 3

This is an example of a 3 score. We will review parts C and D on the next slide.

Part A: This response earns full credit for the correct answer and showing & explaining the correct work.

Part B: This response earns full credit for the correct answer and showing & explaining the correct work.

Slide 15 – Score: 3 Continued

Part C: This response earns full credit for the correct answer of 360 with the computation used as well as an explanation of what they did.!

Part D: Here the student did not find the volume of the larger carton to be 8,000 and instead tried to find dimensions that would give a volume of 1,000. Unfortunately, these dimensions would give a volume of 10,000. So, the student received no credit in Part D. Overall this response shows a “good” understanding of the standard.

This response earned a score of 3 for Parts A, B, and C.

Slide 16 – Score: 2

This is an example of a 2 score.

Part A: Here the student multiplied 2×3 instead of 2^3 .

Part B: This response earns full credit for the correct answer with work shown.

Part C: Here's an example of a student getting credit for Part C because the answer/work shown is correct using their incorrect answer from Part A. Again, we don't want to penalize the student more than once for the same mistake.

Part D: This response is incorrect.

This response overall earned a score of 2 for Parts B and C.

Slide 17 – Score: 1

This is an example of a 1 score.

Part A: This response earns full credit for the correct answer with the work shown. 2 times 2 times 2 is equal to 8.

Part B: This response earns no credit (if they had the correct answer of 2,880 without any work/explanation that would be considered “answer-only” and may earn some partial credit).

Part C: This response earns no credit.

Part D: This response earns no credit; it could earn “answer-only” credit if the dimensions were correct (and not 100,000).

This overall response earned a score of 1 for Part A.

Slide 18 – Score: 0

This is an example of a 0 score.

Part A: This response is so close, but the student added an extra 2 in the multiplication problem.

Part B: Here we see something we call a “transcription error.” That is where we believe the student has done the calculation on their response correctly but, when they went to the computer to enter it in, they miss-typed a digit or omitted a digit. If this student had shown the work needed ($240 \times 12 = 2,880$), we could have given them credit for the correct work shown based on making a transcription error only.

Part C: no credit

Part D: no credit

This response earned a score of 0.

Slide 19 – Instructions for Individual Practice

Now that you have seen examples of how to score question 1, please gather the question, the sample response, the scoring guide, and the scoring notes. These resources are essential when scoring student work. Scorers have these readily available and refer to them as they score each response. Analyze the training responses that were just reviewed, and then independently practice scoring the five practice responses that are included on pages 13 through 17 in your packet. As you read each one, choose the score that best represents each response.

You may pause the presentation and score responses A through E. When you have read and scored each response, you may resume the presentation of the actual scoring results.

Slide 20 – Practice Response A

Thanks for taking the time to score each of the student responses. Here is response A which is on page 13 of the training packet. This response received a score of 2.

Part A: This response shows the correct answer with work shown so this part earns full credit.

Part B: Here we see the correct answer (with correct units even!!) with work shown so this part earns full credit.

Part C: Here the student repeats their answer from Part B, so the response earns no credit here.

Part D: This response shows dimensions for a carton with a volume of 1,000 instead of finding that the volume of the larger carton would need to be 8,000 and then coming up with dimensions for that volume.

The width of “5” would not work with a volume of 1,000 because with blocks that are 2 X 2 X 2, you would need an even number for each dimension.

This response earned a score of 2 for Parts A & B.

Slide 21 – Practice Response B

Here is response B which is on page 14 of the training packet. This response received a score of 4.

Part A: This response shows the correct answer with an explanation given and earns full credit.

Part B: This response shows the correct answer with work shown and earns full credit. It is okay with no units.

Part C: This response shows the correct answer (and correct units!) with work shown and earns full credit.

Part D: Here the student shows that the three correct dimensions give a volume of 8,000 so this response earns full credit.

This response earned a score of 4 for all parts correct.

Slide 22 – Practice Response C

Here is response C which is on page 15 of the training packet. This response received a score of 1.

Part A: This response shows incorrect work and answer, so it earns no credit.

Part B: Here we see the correct answer, but no work or explanation is shown, so Part B earns “answer-only” credit.

Part C: This response shows an incorrect answer and explanation, so it earns no credit.

Part D: This response shows dimensions that give a volume of 1,000 rather than 8,000; a height of “1” would not work with blocks having edge lengths of 2 inches.

Overall, this response was given a score of 1. Note: If the *only* credit given is for answer-only in one part, the response will receive one point. (see the Scoring Notes for more on answer-only options).

Slide 23 – Practice Response D

Here is response D which is on page 16 of the training packet. This response received a score of 0.

Part A: Here the student added instead of multiplying, so the response earns no credit.

Part B: This response shows the student did the same thing here – the student added instead of multiplying, so it earns no credit.

Part C: This response shows only an incorrect answer, so it earns no credit.

Part D: Here we see a nice addition problem, but it is not what was needed here so this response earns no credit.

Overall, this response earned a score of 0.

Slide 24 – Practice Response E

Here is response E which is on page 17 of the training packet. This response received a score of 3.

Part A: This response shows the correct answer with work shown (and an explanation also), so it earns full credit.

Part B: Here we see the correct work shown but with a “computation error.” We chose to overlook a computation error as long as the student shows the correct problem, so this response earns full credit.

Part C: This response shows the correct answer/work using their incorrect answer from Part B, so it earns full credit.

Part D: Here the student did not come up with 3 dimensions nor did they figure out the volume of the larger carton to be 8,000, so this response earns no credit.

This response earned a score of 3 for Parts A, B, and C.

Slide 25 – Instructions to review Question 2: 4-OA.C.5 (Released 2023)

Similar to what I did with question 1, I will now review a second constructed response question. This question is a grade 4 question aligned to the Operations and Algebraic Thinking domain which was released in 2022.

Again, I will review the question, along with the sample response, the scoring guide, the scoring notes and student work responses at each score point, and then you will review and practice independently scoring some additional student responses for this question.

Slide 26 – Question

This Gr. 4 question is about a shape pattern involving squares and triangles and assesses standard 4.OA.C.5.

It begins with a diagram of the first three steps in the pattern.

Part A: asks for the total number of triangles in Step 4 of the pattern. Again, an “easy entry” to get students engaged in the problem and hopefully persevering on to the other Parts.

Part B: asks for the total number of squares in Step 6 of the pattern and asks for an explanation of how that can be determined so this part requires a bit more investigation into the steps of the pattern.

Part C: asks for the total number of triangles in Step 9 of the pattern and asks the student to explain how they could use multiplication to find that answer.

Part D: gives the total number of triangles in a particular step and asks the student to find the number of squares in that same step with an explanation, so a more challenging task than the previous parts.

Slide 27 – Sample Response

This is the Sample Response we used to score the Student Responses for this question. Remember, this is just one possible way to correctly answer the parts in this question.

Part A: For this part, students were only expected to enter a numerical answer of 8, with no text, work or explanation.

Part B: The student could also say something here like “I drew the pattern out to step 6 and I saw 6 squares.”

Part C: Another explanation for finding the 18 here could be something like “I noticed the # of triangles goes up by 2 (2, 4, 6, ...) with each step so I counted up by 2’s to Step 9 and got 18 and $9 \times 2 = 18$.”

Part D: Another explanation might be “the # of squares is always half the # of triangles so I divided 64 by 2 to get 32” OR “if the step has 64 triangles it must be Step 32 and that step would have 32 squares because the # of squares is the same as the step #.”

Slide 28 – Scoring Guide

Similar to the previous scoring guide, the extra sentence for this question is underlined in red, the standard is underlined in green, and in this case, the domain, Operations and Algebraic Thinking is circled in blue.

Slide 29 – Scoring Notes

Part A is a fill in the blank, so the answer is either correct or incorrect.

Part B: In one type of response, we saw students misinterpreting the question and giving an addition problem showing adding the # of squares in ALL steps. As long as we could see the “6” for Step 6 in their problem we gave them full credit.

Part C: We did not require students to show multiplication because we know some students approached the pattern as repeated addition. As long as the response shows understanding, we want to give the student credit. We also saw the addition problem adding up the # of triangles in Steps 1-9 and as long as they had “18” in the 9th Step we gave them full credit.

Part D: This mentions alternative ways to find the answer/explanation.

Slide 30 – Score: 4

This is an example of a 4 score. We will review parts C and D on the next slide.

Part A: We see the correct answer of 8.

Part B: This response shows the correct answer of “6” and also an example of how we sometimes have to “interpret” what the student is trying to say.

One of our basic rules is that we have to score exactly what we see on the response and not “assume” they meant to say something that isn’t there. We know students in the early grades sometimes do have difficulty with clearly expressing what they want to say. On this one we felt we could give them credit for the explanation.

Slide 31 – Score: 4 Continued

Part C: This response shows the “18” and a very minimal “work” of $9 \times 2 = 18$.

Part D: Here we see the correct answer and a thorough explanation for full credit.

This response earned a score of 4 for all parts correct.

Slide 32 – Score: 3

This is an example of a 3 score. We will review parts C and D on the next slide.

Part A: We see the correct answer of 8.

Part B: This response shows an incorrect answer of “12” instead of “6” and explains how they multiplied the Step # by 2 to get their answer which is what they would do to find the # of triangles. We moved from asking about *triangles* in Part A to asking about *squares* in Part B so that’s why the word “*squares*” in the question is in boldface.

Slide 33 – Score: 3 Continued

Part C: This response shows the correct answer of “18” and that they multiplied 2×9 to get the 18.

Part D: Here we see the correct answer of 32 and then if you multiply 32 by 2 you will get 64.

This response earned a score of 3 for Parts A, C, and D.

Slide 34 – Score: 2

This is an example of a 2 score. We will review parts C and D on the next slide.

Part A: The “20” is incorrect.

Part B: This response shows an incorrect answer of “29.” It may be that this student was trying to find the total number of squares in ALL 6 Steps but that would be “21” and we don’t see the addition problem where we would need to see a “6” in the 6th position to give credit here.

Slide 35 – Score: 2 Continued

Part C: Here we see the correct answer of “18” and the explanation of multiplying by 2 is correct.

Part D: This response shows the correct answer of “32” and the student used an equation to demonstrate how they got their answer.

Here’s an example of how a student who did not earn credit in earlier parts of a 4-part question could still earn credit in later parts! Perseverance helps!

This response earned a score of 2 for Parts C and D.

Slide 36 – Score: 1

This is an example of a 1 score. We will review parts C and D on the next slide.

Part A: The “12” is incorrect.

Part B: Here we see that the student found the correct total number of squares in all 6 steps (which is not what we are asking for here), however, we don’t see the addition problem he used with the “6” in the 6th position, so we can’t give credit here.

Note: The reason we have to ask for the “total” number of squares in Step 6 is because if there are 6, then there are also 5 or 4 or 3 or 2 or 1 and those responses would have to be marked correct unless we specifically ask for the “total” number only.

Unfortunately, some students think that the word “total” always means “add something up.”

Slide 37 – Score: 1 Continued

Part C: This response shows 172 which is incorrect. The student multiplied 18 by 9 to solve this problem and got an incorrect product for that problem as well.

Part D: Here we see the correct answer of “32” and showed using division to find the answer. This response earns a 1 for Part D only.

Slide 38 – Score: 0

This is an example of a 0 score. We will review parts C and D on the next slide.

Part A: The “7” is incorrect.

Part B: This response shows that the student can add but they do not show understanding of how to extend the given pattern.

Slide 39 – Score: 0 Continued

Part C: Here we see a similar misunderstanding of the pattern.

Part D: This response shows an incorrect answer and deficient reasoning.

This response earned a score of 0 for no parts correct.

Slide 40 – Instructions for Individual Practice

Once more, having been trained on how to score question 2, please gather the question, the sample response, the scoring guide, and the scoring notes. These resources are essential when scoring student responses. Scorers have these readily available and refer to them as they score each response.

Analyze the training responses that were just reviewed, and then independently practice scoring the five practice responses that are included on pages 29 through 33 in your packet. As you read each response, choose the score that best represents that response. You will follow this process for each one.

You may pause the presentation and score responses A through E. When you have read and scored each one, you may resume the presentation for the actual scoring of the responses.

Slide 41 – Practice Response A

Thank you again for taking the time to score each of the student responses. Here is response A which is on page 29 of the training packet. This response received a score of 4.

Part A: We see the correct answer of “8.”

Part B: This response shows the correct answer. Their work is shown and even though it is an unusual way of thinking to get to the 6 we accepted it.

Part C: Here we see the correct answer with minimal work shown for full credit.

Part D: This response shows the correct answer with appropriate work for full credit.

This response earned a score of 4 for all parts correct and complete.

Slide 42 – Practice Response B

Here is response B which is on page 30 of the training packet. This response received a score of 1.

Part A: The “4” is incorrect.

Part B: This response was given full credit because we can see the “6” in the addition problem.

Part C: Here we see an incorrect addition problem (if they had $2 + 4 + 6 + 8 + 10 + 12 + 14 + 16 + 18 = 90$ then we could give them credit for seeing the “18”).

Part D: This response also shows an addition problem that will not lead to the correct answer so no credit is earned here.

This response earned a score of 1 for Part B.

Slide 43 – Practice Response C

Here is response C which is on page 31 of the training packet. This response received a score of 2.

Part A: The “20” is incorrect.

Part B: This response shows an incorrect answer and reasoning about the pattern.

Part C: Here we can see that this student’s reasoning is a bit different than most of what we saw but it makes sense. 9 (as in Step 9) is 3×3 (or Step 3) so multiplying the number of triangles in Step 3 (6) by 3 would give you the number of triangles in Step 9. This response received full credit.

Part D: Here we see the correct work needed to solve the problem but with a computation error. Since this is a problem-solving standard and not a computation standard the student received full credit for showing that they know how to find the answer.

This response earned a score of 2 for Parts C & D.

Slide 44 – Practice Response D

Here is response D which is on page 32 of the training packet. This response received a score of 3.

Part A: The “8” is correct.

Part B: This response is correct but there’s no work or explanation, so it receives “answer only” credit.

Part C: This response is a correct “answer only.”

Part D: And here we see one more correct “answer only.”

This response earned a score of 3 for full credit in Part A with 3 correct A/O for parts B, C and D.

Slide 45 – Practice Response E

Here is response E which is on page 33 of the training packet. This response received a score of 0.

Part A: The “1” is incorrect.

Part B: This response shows an incorrect answer and explanation, so it receives no credit.

Part C: The “3” is incorrect.

Part D: And the “38” is incorrect.

This response earned a score of 0 for no parts correct.

Slide 46 – Resources on the Website

The following are links to resources that would be helpful as you prepare your students for test administration.

- For all MCAS headlines and/or additional information such as MCAS administration dates and accommodated forms, you can use the link listed for *MCAS headlines and links to MCAS site*.
- The Mathematics Test design provides information on the number of questions, the types of questions, and the percentages of reporting categories that can be found on each math test. Use the *Mathematics Test Designs* link to access the test designs for all grade levels.
- Each year, samples of student responses for each of the released constructed response questions are posted on the website. Use the *Student Work Sample* link to access sample student work for released constructed response questions.
- For grades 3-5, 50% of the questions assessed on the test are released. Use the *Release Questions* link for access to released questions.
- In addition to the released questions, there are practice test questions for each grade level. These practice tests include examples of each question type in the computer-based testing platform that students may encounter during testing. Students can also access an online tutorial to learn how to navigate the online system. Use the link listed to access both the *Practice Tests and the Tutorial*.

Slide 47 – Contact Information

For policy questions, test design questions and/or accommodation questions or concerns before, during or after test administration, please email us at mcas@mass.gov or call us at 781-338-3625.

Also, during test administration, you can also contact the MCAS Service Center for questions at 1-800-737-5103.

Slide 48 – Thank You

We hope this presentation on how the Elementary MCAS Constructed Response Questions are scored has been beneficial.