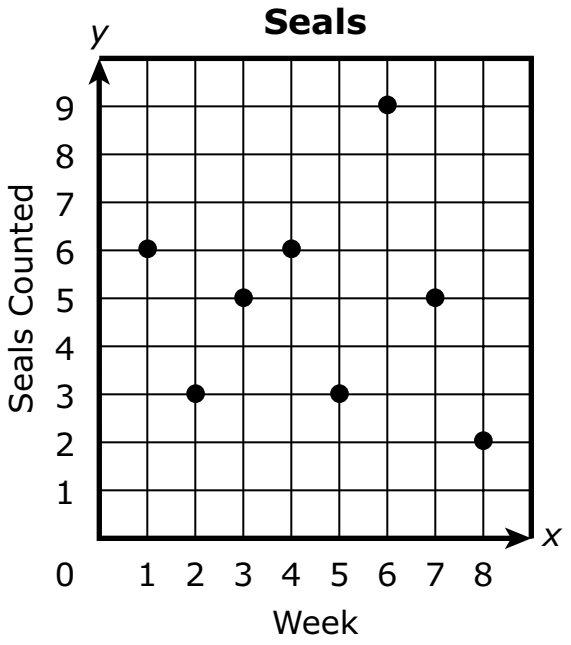
Kentucky Summative Assessments

Grade 5 Mathematics
Released Items
2024

1

MA0520089_3

Maria counted the number of seals she sees every Saturday morning for 8 weeks. The points shown on the coordinate plane represent her results.



What does the point (7, 5) mean in terms of the graph?

A Maria counted 5 times the number of seals in week 7.

B Maria counted 7 times the number of seals in week 5.

C Maria counted 5 seals on Saturday morning in week 7.

D Maria counted 7 seals on Saturday morning in week 5.

Released Item Performance

Kentucky Summative Assessments

Spring 2024
Grade 5
Mathematics

Item: MA0520089
Book Question Number: 1

Standard: KY.5.G.2

Item Type: MC
Key: C

Student Group	Number of Students	Percent Correct	Average Item Score	Item Breakout Statistics - Answer Choice Options			
				A (%)	B (%)	C (%)	D (%)
All Students	**25,608**	46%	0.46	21%	21%	46%	12%
Gender							
Female	**12,653**	45%	0.45	20%	22%	45%	13%
Male	**12,955**	46%	0.46	21%	21%	46%	12%
Ethnicity							
African American	**2,639**	31%	0.31	24%	29%	31%	15%
American Indian or Alaska Native	**42**	33%	0.33	24%	26%	33%	17%
Asian	**585**	61%	0.61	15%	14%	61%	11%
Hispanic or Latino	**2,104**	42%	0.42	20%	24%	42%	15%
Native Hawaiian or Pacific Islander	**41**	34%	0.34	27%	27%	34%	12%
White (non-Hispanic)	**18,793**	48%	0.48	20%	20%	48%	12%
Two or more races	**1,404**	44%	0.44	21%	24%	44%	12%
Migrant	**129**	35%	0.35	16%	32%	35%	17%
English Learner	**1,173**	30%	0.30	23%	29%	30%	18%
Economically Disadvantaged	**15,763**	40%	0.40	22%	25%	40%	13%
Students with Disabilities	**3,070**	36%	0.36	24%	24%	36%	15%

2

MA0520062_:

Robert works at a bakery.

Part A

On Monday, Robert baked 5 cakes. He cut each cake into pieces to sell to his customers. Each piece equals $\frac{1}{4}$ of a cake.

- What is the total number of pieces that Robert cut on Monday?
- Show your work or explain how you got your answer.

Enter your answer and your work or explanation in the space provided.

Part B

On Tuesday, Robert made 1 large cake and cut it into fourths. Then he cut each fourth into 5 equal parts to make small pieces.

- What fraction of the large cake is the amount of each small piece?
- Show your work or explain how you got your answer.

Enter your answer and your work or explanation in the space provided.

Released Item Performance

Kentucky Summative Assessments

Spring 2024
Grade 5
Mathematics

Item: MA0520062
Book Question Number: 2

Standard: KY.5.NF.7.c

Item Type: ER
Key: Rubric

Student Group	Number of Students	Percent Correct	Average Item Score	Item Breakout Statistics - Score Percentages				
				Score 0 (%)	Score 1(%)	Score 2 (%)	Score 3 (%)	Score 4 (%)
All Students	**46,672**	35.2%	1.41	41%	15%	20%	10%	14%
Gender								
Female	**22,807**	34.9%	1.39	41%	15%	20%	9%	14%
Male	**23,865**	35.6%	1.42	41%	14%	20%	11%	14%
Ethnicity								
African American	**4,945**	20.9%	0.84	59%	16%	15%	5%	6%
American Indian or Alaska Native	**61**	21.7%	0.87	59%	15%	11%	10%	5%
Asian	**1,044**	51.8%	2.07	26%	10%	23%	12%	29%
Hispanic or Latino	**4,290**	28.2%	1.13	49%	16%	18%	8%	9%
Native Hawaiian or Pacific Islander	**92**	30.4%	1.22	45%	16%	23%	5%	11%
White (non-Hispanic)	**33,679**	38.0%	1.52	38%	15%	21%	11%	15%
Two or more races	**2,560**	32.3%	1.29	46%	14%	19%	9%	13%
Migrant	**253**	24.4%	0.98	53%	18%	16%	6%	7%
English Learner	**2,883**	18.0%	0.72	63%	16%	13%	5%	4%
Economically Disadvantaged	**29,169**	28.8%	1.15	48%	15%	19%	8%	10%
Students with Disabilities	**7,244**	24.3%	0.97	57%	13%	15%	6%	9%

Rubric

Rubric	
Score Point 4	Student scores 4 points.
Score Point 3	Student scores 3 or 3.5 points.
Score Point 2	Student scores 2 or 2.5 points.
Score Point 1	Student scores 0.5, 1, or 1.5 points. **OR** Student demonstrates a minimal understanding of solving real-world problems involving division of unit fractions by whole numbers and whole numbers by unit fractions.
Score Point 0	The student response is completely incorrect or irrelevant.

Score Points	**Part A**
	• Score 2 points:
	  ○ Correct answer and a complete explanation
	• Score 1.5 points:
	  ○ Correct answer with a partial explanation
	• Score 1 point:
	  ○ Correct answer with no explanation **OR**
	  ○ Complete explanation with incorrect or no answer
	• Score 0.5 point:
	  ○ Partial explanation is provided
	Part B
	• Score 2 points:
	  ○ Correct fraction and complete explanation
	• Score 1.5 points:
	  ○ Correct fraction with a partial explanation
	• Score 1 point:
	  ○ Correct fraction with no explanation **OR**
	  ○ Complete explanation with incorrect or no answer
	• Score 0.5 point:
	  ○ Partial explanation is provided

Correct Answers	**Part A** He cut 20 small pieces. Each cake is divided into fourths, so to find the number of pieces I divide 5 by 1/4. $5 \div 1/4 = 5 \times 4 = 20$ **Part B** Each small piece is 1/20 of the area of the large cake. Each 1/4 area of the large cake is being divided into 5 parts. $(1/4) \div 5 = (1/4) \times (1/5) = 1/20$

Anchor Set

A1

Part A:
the answer is 5/4 or 1 1/4 how i got that is simple all u do is 5 x 1/4 and 5 x 1 is 5 and u do nothing with the denomanater

Part B:
each piece is 1/4 and then they timesed it by five so the answer is 1 1/4 or 5/4

Anchor Annotation, Paper 1
Score Point 0

Part A: Score Point 0
This response receives no credit. It includes neither of the two required elements:

The number of pieces that Robert cut on Monday is incorrect (5/4 or 1 1/4)
The work or explanation used to find the answer is incorrect (5 × 1/4).

Part B: Score Point 0
This response receives no credit. It includes neither of the two required elements:

The amount, in fraction form, of each small piece of the large cake is incorrect (5/4).

The work or explanation used to find the answer is incorrect (each piece is 1/4 and then they timesed it by five).

A2

Part A:
1/4 + 1/4 + 1/4 + 1/4 +1/4 = 5/20

Part B:
1 4/5 how i got this answer is when i saw the eqwashen i thought of mixed numbers

Anchor Annotation, Paper 2
Score Point 0

Part A: Score Point 0
This response receives no credit. It includes neither of the two required elements:

The number of pieces that Robert cut on Monday is incorrect (5/20).

The work or explanation used to find the answer is incorrect (1/4 + 1/4 + 1/4 + 1/4 + 1/4). Note the repeated addition of 1/4 five times is equivalent to multiplying 1/4 by 5, which is an incorrect process to determine the total number of pieces.

Part B: Score Point 0
This response receives no credit. It includes neither of the two required elements:

The amount, in fraction form, of each small piece of the large cake is incorrect (1 4/5) No work or explanation used to find the answer is provided.

A3

Part A:
5 x 1/4 = 20/4

Part B:
1 x 1/4 = 20/4 x 1/5 = 20/20

Anchor Annotation, Paper 3
Score Point 0

Part A: Score Point 0
This response receives no credit. It includes neither of the two required elements:

The number of pieces that Robert cut on Monday is incorrect (20/4).

The work or explanation used to find the answer is incorrect (5 × 1/4).

Part B: Score Point 0
This response receives no credit. It includes neither of the two required elements:

The amount, in fraction form, of each small piece of the large cake is incorrect (20/20).

The work or explanation used to find the answer is incorrect (1 x 1/4 = 20/4 x 1/5 = 20/20).

A4

Part A:
5/20

Part B:
1/20

Anchor Annotation, Paper 4
Score Point 1
Part A: Score Point 0
This response receives no credit. It includes neither of the two required elements:

The number of pieces that Robert cut on Monday is incorrect (5/20)
No work or explanation used to find the answer is provided.

Part B: Score Point 1
This response receives partial credit. It includes one of the two required elements:

- The correct amount, in fraction form, of each small piece of the large cake is provided (1/20)

No work or explanation used to find the answer is provided.

A5

Part A:
he cut a total number of 20 pieces of cake

Part B:
the fraction is about 13

Anchor Annotation, Paper 5
Score Point 1

Part A: Score Point 1
This response receives partial credit. It includes one of the two required elements:

- The correct number of pieces that Robert cut on Monday is provided (20 pieces).

No work or explanation used to find the answer is provided.

Part B: Score Point 0
This response receives no credit. It includes neither of the two required elements:

The amount of each small piece of the large cake is not in fraction form, and, even if it were, it would be incorrect (about 13).

No work or explanation used to find the answer is provided.

Part A:
5 ÷ 1/4 = 1 1/3 because there are 5 cakes and they are spited in 1/4 and the answer would be 5/4 so i simplify that and i got 1 1/31

Part B:
1 ÷ 5/4 = 1/3 you cant do that i notice that 5/4 has a hole number so you would do is take the hole number and divide that and you will have 1/3

Anchor Annotation, Paper 6
Score Point 1

Part A: Score Point 1
This response receives partial credit. It includes one of the two required elements:

- Complete valid work or explanation used to find the answer is provided (5 ÷ 1/4). Note that students are not required to show or explain how to complete the division process, the "KCF" noted in Anchor paper 14, in order to receive credit for the explanation. However, if they do, it must be valid.

The number of pieces that Robert cut on Monday is incorrect (1 1/3).

Part B: Score Point 0
This response receives no credit. It includes neither of the two required elements:

The amount, in fraction form, of each small piece of the large cake is incorrect (1/3).

The work or explanation used to find the answer is incorrect (1 ÷ 5/4).

Part A:
The total number of peiceshe cut on Monday is 1 1/5. I found this since I multiplied 1/4 times 5 and I got 1 1/5.

Part B:
The small pieces that were cut made 1/20. I know this since I divided 1/4 by 5 and then I got 1/20.

Anchor Annotation, Paper 7
Score Point 2

Part A: Score Point 0
This response receives no credit. It includes neither of the two required elements:

The number of pieces that Robert cut on Monday is incorrect (1 1/5).

The work or explanation used to find the answer is incorrect (I multiplied 1/4 times 5). The work shown equals 5/4. Instead, 5 should be divided by 1/4.

Part B: Score Point 2
This response receives full credit. It includes both of the two required elements:

- The correct amount, in fraction form, of each small piece of the large cake is provided (1/20).

- Complete valid work or explanation used to find the answer is provided (I divided 1/4 by 5). Note that students are not required to show or explain how to complete the division process, the "KCF" noted in Anchor paper 14, to receive credit for this element. However, if they do, it must be valid.

Part A:
5 x 1/4 = 20

Robert will sell 20 pieces of cake on Monday.

Part B:
1/4 x 5 = 1/20

Robert will sell 1/20 of the cake on Tuesday.

Anchor Annotation, Paper 8
Score Point 2

Part A: Score Point 1
This response receives partial credit. It includes one of the two required elements:

- The correct number of pieces that Robert cut on Monday is provided (20 pieces).

The work or explanation used to find the answer is incorrect (5 × 1/4). Compare to the same explanation in Anchor paper 6.

Part B: Score Point 1
This response receives partial credit. It includes one of the two required elements:

- The correct amount, in fraction form, of each small piece of the large cake is provided (1/20).

The work or explanation used to find the answer is incorrect (1/4 × 5 = 1/20). The work shown equals 5/4. Instead, 1/4 should be divided by 5.

Part A:
Robert cut 20 pieces of cake on Monday.

It says that there are 5 cakes and each piece of the cake is 1/4 so to cut the entire cake it would be 4 for 1 cake. For 5 cakes it would be 4/4 + 4/4 + 4/4 + 4/4 + 4/4 = 20 and that would be 20 pieces of cake another way to do it is by doing 4 x 5 because there will be 4 pieces of cake in 5 cakes.

Part B:
Each small piece will be 5/20.

Anchor Annotation, Paper 9
Score Point 2

Part A: Score Point 2
This response receives full credit. It includes both of the two required elements:

- The correct number of pieces that Robert cut on Monday is provided (20 pieces).

- Complete valid work or explanation used to find the answer is provided (it would be 4 for 1 cake. For 5 cakes it would be 4/4+ 4/4+ 4/4+ 4/4+ 4/4= 20/4). Note that repeated addition is multiplication so the work shown is equivalent to multiplying 4/*4* by 5.

Part B: Score Point 0
This response receives no credit. It includes neither of the two required elements:

The amount, in fraction form, of each small piece of the large cake is incorrect (5/20).

No work or explanation used to find the answer is provided.

Part A:
Robert cuts 20 slices on Monday. How I got my answer is by 5 then times it by 1/4 and that is how I got my answer (20).

Part B:
1/20 is the amount of each small piece of the cake. How I got my answer is by making a model and splitting them into fourths then I cut the fourths into fifths. And that is how I got my answer (1/20).

Anchor Annotation, Paper 10
Score Point 3

Part A: Score Point 1
This response receives partial credit. It includes one of the two required elements:

- The correct number of pieces that Robert cut on Monday is provided (20 slices).

The work or explanation used to find the answer is incorrect (by 5 then times it by 1/4). 5 times 1/4 equals *5/4*, not 20. Instead, 5 should be divided by 1/4.

Part B: Score Point 2
This response receives full credit. It includes both of the two required elements:

- The correct amount, in fraction form, of each small piece of the large cake is provided (1/20).

- Complete valid work or explanation used to find the answer is provided (by making a model and spilting them into fourths then I cut the fourths into fiths). Note that the student uses words to explain how to create a fraction model to represent the situation. As noted in Anchor paper 12, the term "fiths" is precise with regards to dividing the pieces equally.

Part A:
5 ÷ 1/4
5/1 x 4/1 = 20/1 = 20

Part B:
1/20 of the cake is in each small piece of cake.

Anchor Annotation, Paper 11
Score Point 3

Part A: Score Point 2
This response receives full credit. It includes both of the two required elements:

- The correct number of pieces that Robert cut on Monday is provided (20 pieces).

- Complete valid work or explanation used to find the answer is provided (5 ÷ 1/4
  5/1 x 4/1 = 20/1 = 20

Part B: Score Point 1
This response receives partial credit. It includes one of the two required elements:

- The correct amount, in fraction form, of each small piece of the large cake is provided (1/20)

No work or explanation used to find the answer is provided.

Part A:
The total pieces of cake he cut on Monday was 20 pieces. I know this because I know that 1/4 of a cake is 25%, so I multiplied 4 times 5 because there were 5 cakes, so 5 times 4 is 20 and that is how I got my answer of 20.
5 x 4 = 20

Part B:
There are 16 total pieces. I know this because I drew one big "cake" and cut it into fourths and then I cut those fourths into fifths and it was all equal to 16 total pieces of the large cake.

Anchor Annotation, Paper 12
Score Point 3

Part A: Score Point 2
This response receives full credit. It includes both of the two required elements:

- The correct number of pieces that Robert cut on Monday is provided (20 pieces).
- Complete valid work or explanation used to find the answer is provided (1/4 of a cake is 25%, so i multiplied 4 times 5 because there were 5 cakes so 5 times 4 is 20).

Part B: Score Point 1
This response receives partial credit. It includes one of the two required elements:

- Complete valid work or explanation of the process needed to find the answer is provided (i drew one big “cake” and cut it into fourths and then i cut those fourths into fifths and it was all equal to 16 total pieces). Note that the student does not repeat the instructions from the prompt. Instead, by using the term “fifths” to describe the second sectioning of the cake demonstrates understanding of equal sized pieces. In addition, the reference to “16 total pieces” shows understanding that the final procedure requires addition. The final answer is incorrect due to a computation error; however, that does not invalidate a valid process. The credit is lost for the answer itself.

The amount of each small piece of the large cake is not in fraction form and is incorrect due to a computation error (16 total pieces).

Part A:
A: Robert cut 20 slices on Monday.

B: I know this because he had five cakes that he cut into fourths. Each cake has 4/4. If you multiply 4 pieces times 5 cakes, the product will be 20.

Part B:
A: Each small piece is equal to 1/20.

B: If you divide 1/4 by 5/1, you change from division to multiplication. 5/1 becomes 1/5 and 1/4 stays the same. Now I can multiply 1/4 x 1/5 to get 1/20.

Anchor Annotation, Paper 13
Score Point 4

Part A: Score Point 2
This response receives full credit. It includes both of the two required elements:

- The correct number of pieces that Robert cut on Monday is provided (20 slices).
- Complete valid work or explanation used to find the answer is provided (Each cake has 4/4. If you multiply 4 pieces times 5 cakes, the product will be 20).

Part B: Score Point 2
This response receives full credit. It includes both of the two required elements:

- The correct amount, in fraction form, of each small piece of the large cake is provided (1/20).
- Complete valid work or explanation used to find the answer is provided (If you divide ¼ by 5/1, you change from division to multiplication. 5/1 becomes 1/5 and ¼ stays the same... 1/4 x 1/5 to get 1/20).

Part A:
5 ÷ 1/4 5/1 x 4/1= 20/1 or 20.

The total number of pieces that Robert cut on Monday was 20. This is because of (the expression above). In the expression above it shows the KCF (keep, change, flip) strategy. But before you use this strategy you need to change the whole number 5 into an improper fraction, you do this by putting 5 over 1. Next, you need to keep the number the same (5/1) change the math symbol to multiplication, and then finally flip the 1/4 to 4/1.

Part B:
4 x 5 = 20

The fraction of one piece of the large cake is 1/20. If you drew out a circle that had 4 equal parts and took each of those parts and multiplied it, it would be like multiplying 4 x 5, because it would be like each fourth needs to be split up again so you would draw 5 pieces in each of the 4 pieces. This would give you 20 pieces, resulting in 1/20 of each and every piece.

Anchor Annotation, Paper 14
Score Point 4

Part A: Score Point 2
This response receives full credit. It includes both of the two required elements:

- The correct number of pieces that Robert cut on Monday is provided (20).

- Complete valid work or explanation used to find the answer is provided (5 ÷ 1/4 5/1 x 4/1= 20/1 or 20) In addition, the student provides an explanation in words (in the expression above it shows the KCF [keep, change, flip] strategy . . . change the whole number into 5 over 1 . . . change the math symbol to multiplication, and then finally flip the 1/4 to 4/1) Either explanation on its own satisfies this element.

Part B: Score Point 2
This response receives full credit. It includes both of the two required elements:

- The correct amount, in fraction form, of each small piece of the large cake is provided (1/20).

- Complete valid work or explanation used to find the answer is provided (4 x 5 = 20). In addition, the student provides an explanation in words (each fourth needs to be split up again so you would draw 5 pieces in each of the 4 pieces. This would give you 20 pieces, resulting in 1/20). Note that the student uses words to explain how to create a fraction model to represent the situation. Either explanation on its own satisfies this element.

Part A:
The total pieces of cake Robert baked on Monday was 20 pieces. I know this because ifevery slice of cake equaled 1/4 of a cake then one whole cake would be 4 pieces. However, Robert made 5 cakes, so we have to repeat 4 five times to get 20 total pieces. 4 x 5 = 20

Part B:
Each small piece of Robert's large cake are 1/20 of the cake. I know this because first he cut his cake into 4 parts. Next, when you cut those pieces into fifths, which means you are making the amount of pieces greater. To do this you would have to cut the the total amount of cake into twentieths, because you are cutting each slice into fifths, and having 4 pieces, 4 times 5 is 20 total pieces. This would mean each individual piece would equal 1/20.

Anchor Annotation, Paper 15
Score Point 4

Part A: Score Point 2
This response receives full credit. It includes both of the two required elements:

- The correct number of pieces that Robert cut on Monday is provided (20 pieces).
- Complete valid work or explanation used to find the answer is provided (ifevery slice of cake equaled 1/4 of a cake then one whole cake would be 4 pieces . . . we have to repeat 4 five times . . . 4 x 5 = 20

Part B: Score Point 2

This response receives full credit. It includes both of the two required elements:

- The correct amount, in fraction form, of each small piece of the large cake is provided (1/20).
- Complete valid work or explanation used to find the answer is provided (he cut his cake into 4 parts . . . you cut those pieces into fifths, which means you are making the amount of pieces greater . . . 4 times 5 is 20 total pieces . . . each individual piece would equal 1/20).

Note that the total score, in this case, 4, is derived by adding the points earned in Part A and Part B.

3

MA0520053_2

A baker needs 5 cups of flour to make pancakes. He only has a $\frac{1}{3}$-cup measuring spoon. Which fraction model is shaded to show the number of $\frac{1}{3}$-cup measuring spoons of flour the baker will need to make the pancakes?

A

B

C

D

Released Item Performance

Kentucky Summative Assessments

Spring 2024
Grade 5
Mathematics

Item: MA0520053
Book Question Number: 3

Standard: KY.5.NF.7.b

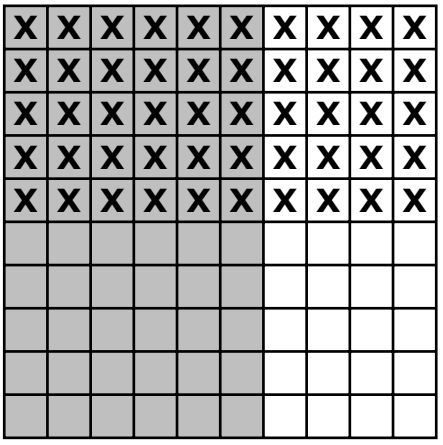
Item Type: MC
Key: B

Student Group	Number of Students	Percent Correct	Average Item Score	Item Breakout Statistics - Answer Choice Options			
				A (%)	B (%)	C (%)	D (%)
All Students	**47,155**	35%	0.35	57%	35%	3%	5%
Gender							
Female	**23,010**	32%	0.32	61%	32%	2%	5%
Male	**24,145**	39%	0.39	53%	39%	3%	6%
Ethnicity							
African American	**5,037**	23%	0.23	67%	23%	3%	6%
American Indian or Alaska Native	**64**	27%	0.27	64%	27%	0%	9%
Asian	**1,052**	44%	0.44	49%	44%	3%	4%
Hispanic or Latino	**4,344**	27%	0.27	64%	27%	3%	6%
Native Hawaiian or Pacific Islander	**92**	18%	0.18	74%	18%	3%	4%
White (non-Hispanic)	**33,974**	38%	0.38	54%	38%	3%	5%
Two or more races	**2,591**	33%	0.33	58%	33%	3%	6%
Migrant	**256**	25%	0.25	62%	25%	5%	7%
English Learner	**2,928**	17%	0.17	71%	17%	4%	8%
Economically Disadvantaged	**29,550**	30%	0.30	61%	30%	3%	6%
Students with Disabilities	**7,376**	28%	0.28	60%	28%	4%	8%

4

MA0520125_4

A student used the model shown to find the product of two factors. The student used shaded squares to represent the first factor and Xs to represent the second factor.



Which expression can be used to represent the student's model?

A 0.06×0.05

B 0.06×0.5

C 0.6×0.05

D 0.6×0.5

Released Item Performance

Kentucky Summative Assessments

Spring 2024
Grade 5
Mathematics

Item: MA0520125
Book Question Number: 4

Standard: KY.5.NBT.7.a

Item Type: MC
Key: D

Student Group	Number of Students	Percent Correct	Average Item Score	Item Breakout Statistics - Answer Choice Options			
				A (%)	B (%)	C (%)	D (%)
All Students	**47,198**	43%	0.43	28%	17%	12%	43%
Gender							
Female	**23,028**	41%	0.41	30%	18%	11%	41%
Male	**24,170**	46%	0.46	27%	16%	12%	46%
Ethnicity							
African American	**5,041**	30%	0.30	32%	24%	13%	30%
American Indian or Alaska Native	**64**	33%	0.33	28%	22%	17%	33%
Asian	**1,055**	55%	0.55	23%	12%	10%	55%
Hispanic or Latino	**4,383**	37%	0.37	28%	22%	13%	37%
Native Hawaiian or Pacific Islander	**93**	39%	0.39	29%	22%	11%	39%
White (non-Hispanic)	**33,970**	46%	0.46	28%	15%	11%	46%
Two or more races	**2,591**	39%	0.39	30%	19%	12%	39%
Migrant	**268**	30%	0.30	36%	23%	11%	30%
English Learner	**2,972**	30%	0.30	30%	26%	14%	30%
Economically Disadvantaged	**29,574**	39%	0.39	30%	19%	13%	39%
Students with Disabilities	**7,378**	34%	0.34	31%	21%	14%	34%

5

MA0520129_1,4

Sam and Ronda each round the same set of numbers shown.

10.995, 11.061, 12.755, 13.598, 18.907

- Sam correctly rounds each of the numbers to the nearest tenth.
- Ronda correctly rounds each of the numbers to the nearest hundredth.

For which numbers is Sam's rounded number the same as Ronda's rounded number?

Select **two** correct answers.

A 10.995
B 11.061
C 12.755
D 13.598
E 18.907

Released Item Performance

Kentucky Summative Assessments

Spring 2024
Grade 5
Mathematics

Item: MA0520129*
Book Question Number: 5

Standard: KY.5.NBT.4

Item Type: MS
Key: A,D

Student Group	Number of Students	Percent Correct	Average Item Score	Item Breakout Statistics - Score Percentages		
				Score 0 (%)	Score 1 (%)	Score 2 (%)
All Students	**21,462**	54.0%	1.08	18%	57%	26%
Gender						
Female	**10,315**	52.3%	1.05	19%	57%	24%
Male	**11,147**	55.5%	1.11	16%	57%	27%
Ethnicity						
African American	**2,384**	47.9%	0.96	21%	63%	16%
American Indian or Alaska Native	**21**	52.4%	1.05	14%	67%	19%
Asian	**466**	63.4%	1.27	13%	47%	40%
Hispanic or Latino	**2,230**	50.8%	1.02	20%	58%	22%
Native Hawaiian or Pacific Islander	**51**	52.0%	1.04	14%	69%	18%
White (non-Hispanic)	**15,125**	55.2%	1.10	17%	56%	27%
Two or more races	**1,185**	52.7%	1.05	18%	59%	23%
Migrant	**126**	50.4%	1.01	21%	58%	21%
English Learner	**1,747**	46.4%	0.93	23%	61%	16%
Economically Disadvantaged	**13,724**	51.4%	1.03	19%	60%	22%
Students with Disabilities	**4,288**	48.6%	0.97	20%	62%	18%

* Calculator section

6

MA0520010_2

Austin uses the length of his steps to measure distances. The table shows the distance Austin walks in certain numbers of steps.

Austin's Steps

Number of Steps	Distance (inches)
2	48
3	72
4	96
6	144

Which ordered pair represents a number of steps, x, and a distance, y, in inches, that Austin takes?

A (8, 168)

B (11, 264)

C (12, 150)

D (15, 300)

Released Item Performance

Kentucky Summative Assessments

Spring 2024
Grade 5
Mathematics

Item: MA0520010*
Book Question Number: 6

Standard: KY.5.OA.3.c

Item Type: MC
Key: B

Student Group	Number of Students	Percent Correct	Average Item Score	Item Breakout Statistics - Answer Choice Options			
				A (%)	B (%)	C (%)	D (%)
All Students	**34,600**	36%	0.36	31%	36%	14%	19%
Gender							
Female	**16,854**	33%	0.33	32%	33%	15%	21%
Male	**17,746**	39%	0.39	30%	39%	13%	17%
Ethnicity							
African American	**3,715**	31%	0.31	32%	31%	20%	17%
American Indian or Alaska Native	**50**	32%	0.32	34%	32%	16%	18%
Asian	**798**	50%	0.50	26%	50%	9%	16%
Hispanic or Latino	**3,280**	31%	0.31	31%	31%	19%	20%
Native Hawaiian or Pacific Islander	**61**	30%	0.30	36%	30%	16%	18%
White (non-Hispanic)	**24,784**	37%	0.37	31%	37%	12%	19%
Two or more races	**1,911**	34%	0.34	33%	34%	15%	18%
Migrant	**213**	32%	0.32	29%	32%	20%	19%
English Learner	**2,309**	31%	0.31	30%	31%	21%	18%
Economically Disadvantaged	**21,830**	33%	0.33	32%	33%	16%	19%
Students with Disabilities	**5,859**	32%	0.32	30%	32%	19%	19%

* Calculator section

MA0520C2_00

Maggie saves the same amount of money each week. She saves some of it for a new pair of shoes and some of it for new art supplies. The table represents how much money Maggie has saved for her new shoes and art supplies.

Maggie's Savings Each Week (dollars)

Week	**0**	**1**	**2**	**3**
New Shoes (x)	0	3	6	9
Art Supplies (y)	0	6	12	18

7 MA0520C2_01_3

What rule could be used to describe the relationship between the week number and the money Maggie has saved for new art supplies, y?

A The value for y is 2 times the value of the week number.

B The value for y is 5 more than the value of the week number.

C The value for y is 6 times the value of the week number.

D The value for y is 3 more than the value of the week number.

Released Item Performance

Kentucky Summative Assessments

Spring 2024
Grade 5
Mathematics

Item: MA0520C2_01*
Book Question Number: 7

Standard: KY.5.OA.3.a

Item Type: MC
Key: C

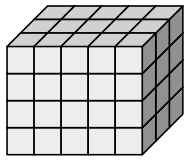
Student Group	Number of Students	Percent Correct	Average Item Score	Item Breakout Statistics - Answer Choice Options			
				A (%)	B (%)	C (%)	D (%)
All Students	**25,637**	50%	0.50	29%	10%	50%	11%
Gender							
Female	**12,671**	49%	0.49	29%	10%	49%	12%
Male	**12,966**	51%	0.51	30%	9%	51%	10%
Ethnicity							
African American	**2,644**	44%	0.44	27%	15%	44%	13%
American Indian or Alaska Native	**42**	55%	0.55	21%	14%	55%	10%
Asian	**585**	57%	0.57	31%	5%	57%	8%
Hispanic or Latino	**2,107**	47%	0.47	29%	12%	47%	12%
Native Hawaiian or Pacific Islander	**41**	39%	0.39	37%	10%	39%	15%
White (non-Hispanic)	**18,811**	51%	0.51	29%	9%	51%	11%
Two or more races	**1,407**	46%	0.46	30%	11%	46%	12%
Migrant	**130**	44%	0.44	34%	14%	44%	8%
English Learner	**1,175**	43%	0.43	27%	15%	43%	14%
Economically Disadvantaged	**15,786**	46%	0.46	29%	12%	46%	13%
Students with Disabilities	**3,074**	46%	0.46	25%	14%	46%	16%

* Calculator section

8

MA0520069_4

A student made a solid rectangular prism using 1-inch cubes, as shown.



The student removed the top layer of cubes. The student used the remaining cubes to create a new prism with different dimensions. What is the volume, in cubic inches, of the new prism?

A 15

B 20

C 21

D 45

STOP

Released Item Performance

Kentucky Summative Assessments

Spring 2024
Grade 5
Mathematics

Item: MA0520069*
Book Question Number: 8

Standard: KY.5.MD.4

Item Type: MC
Key: D

Student Group	Number of Students	Percent Correct	Average Item Score	Item Breakout Statistics - Answer Choice Options			
				A (%)	B (%)	C (%)	D (%)
All Students	**21,502**	59%	0.59	18%	15%	7%	59%
Gender							
Female	**10,332**	61%	0.61	17%	15%	7%	61%
Male	**11,170**	58%	0.58	20%	15%	7%	58%
Ethnicity							
African American	**2,392**	51%	0.51	17%	22%	9%	51%
American Indian or Alaska Native	**21**	57%	0.57	10%	14%	19%	57%
Asian	**467**	69%	0.69	16%	11%	4%	69%
Hispanic or Latino	**2,233**	55%	0.55	17%	20%	9%	55%
Native Hawaiian or Pacific Islander	**51**	59%	0.59	20%	10%	12%	59%
White (non-Hispanic)	**15,152**	61%	0.61	19%	13%	6%	61%
Two or more races	**1,185**	55%	0.55	18%	18%	9%	55%
Migrant	**127**	54%	0.54	15%	21%	9%	54%
English Learner	**1,752**	49%	0.49	16%	24%	11%	49%
Economically Disadvantaged	**13,756**	56%	0.56	18%	17%	8%	56%
Students with Disabilities	**4,301**	49%	0.49	18%	21%	12%	49%

* Calculator section

Investing in Kentucky's Future, One Student at a Time