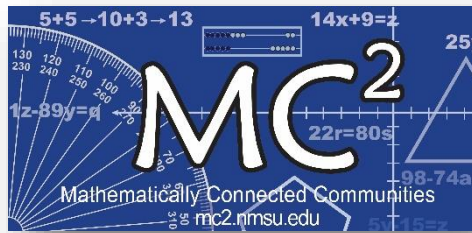


Mathematically Connected Communities



PARCC Practice Test Items Grade 5 Mathematics

Excerpted from:

- *MC² PARCC Practice Test Item Packets-Preparing for Spring 2017*
<https://mc2.nmsu.edu/teachers/preparing-for-parcc/>
- *MC² PARCC Practice Test Item Packets-Preparing for Spring 2015*
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- *PARCC Released Items-Spring 2017*
https://parcc-assessment.org/released-items/?fwp_subject_facet=mathematics

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MC² Thinking Protocol: PARCC Test Prep Using Mathematical Practice Prompts

Use the MC² Thinking Protocol and follow the process below in working with the PARCC practice test items found in this packet:

1. Choose items from this packet that relate to math concepts studied in the current or previous curriculum units during your math instruction. Each item may be used as a practice item worksheet.
2. Choose a set of **Thinking/Writing Prompts** below based on the math practice the class is working to develop.
3. Add the prompts to the practice item worksheet or display the prompts for the students to respond to.
4. Continue using the same set of prompts for an extended period of time so children develop competence and confidence in describing their mathematical thinking related to the math practice.

The questions below were intentionally not included on each MC² PARCC practice test item worksheet in this packet. These are intended to help students move beyond “answer getting” to fully making sense of test item questions and their own mathematical thinking.

Thinking/Writing Prompts to Promote Mathematical Practices

Math Practice 1: Make sense of problems and persevere in solving them.

1. What do you know about the problem?
2. What questions do you have?
3. Explain your reasoning or thinking in solving the problem.

Math Practice 3: Construct viable arguments and critique the reasoning of others.

1. What are the assumptions, definitions, and previous knowledge to help in thinking about this problem?
2. What are some possible conjectures that you have about the problem?
3. Explain your mathematical argument so that somebody else can make sense of your thinking.

Math Practice 4: Model with mathematics.

1. What are the important quantities in the problem that are needed to solve it?
2. What mathematical operation(s) or representation(s) will you use to solve the problem?
3. Explain how you know your answer makes sense in the context of the situation.

Math Practice 6: Attend to precision.

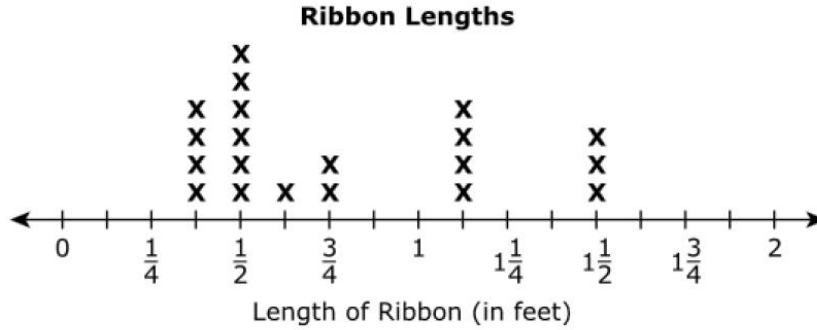
1. What are the important units in the problem? (What are we measuring or counting?)
2. What relationship between the units/quantities do you need to know in order to solve the problem?
3. Use appropriate and precise mathematical language, units, labels and computations to clearly describe your mathematical reasoning.



Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
1	5.MD.2-2	5.MD.B.2	Measurement & Data	PARCC Released Items Spring 2017

27.

Sara uses ribbon to make hair bows. The length of each ribbon Sara uses is represented on the line plot shown.



What is the difference, in feet, between one of the pieces of ribbon that has the longest length and one of the pieces of ribbon that has the shortest length?

Enter your answer in the boxes.

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
2	5.NF.6-2	5.NF.B.6	Number & Operations - Fractions	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

24. An egg farm packages 264 total cartons of eggs each month. The farm has 3 different sizes of cartons.

- The small carton holds 8 eggs, and $\frac{1}{6}$ of the total cartons are small.
- The medium carton holds 12 eggs, and $\frac{2}{3}$ of the total cartons are medium.
- The large carton holds 18 eggs, and the rest of the total cartons are large.

Determine how many of each size of carton is needed each month. Then determine how many eggs are needed to fill the 264 cartons. Show your work or explain your answers.

Enter your answers and your work or explanations in the space provided.

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
3	5.C.4-1	OGL	Reasoning	PARCC Released Items Spring 2017

23.

Josh biked $1\frac{1}{3}$ miles to school. Callie biked $\frac{1}{2}$ mile to school. The fraction-strip diagram shown can be used to find how many more miles Josh biked than Callie.



- How many more miles did Josh bike than Callie?
- Explain how the diagram can be used to answer this question.
- What is the total number of miles Josh and Callie biked altogether?
- Explain how the diagram can be used to find the total number of miles Josh and Callie biked altogether.

Enter your answers and your explanations in the space provided.



▼ Math symbols

+	-	×	÷
$\frac{\square}{\square}$	$\frac{\square}{\square}$	(·)	[]
=	<	>	≠
\$	°	?	

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
4	5.NF.7a	5.NF.B.7.A	Number & Operations - Fractions	Illustrative Mathematics

5.NF Painting a room

Kulani is painting his room. He needs $\frac{1}{3}$ of a gallon to paint the whole room. What fraction of a gallon will he need for each of his 4 walls if he uses the same amount of paint on each? Explain your work and draw a picture to support your reasoning.



5.NF Painting a room

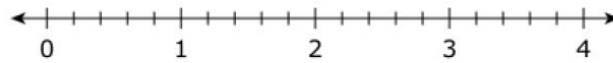
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Difficulty Order	Evidence Statement	Common Core State Standards	Domains	Source
5	5.C.5-2	OGL	Reasoning	PARCC Released Items Spring 2017

30.

Part A

The number line shown can be used to find the product of $\frac{3}{5}$ and 4.



- What is the value of the product of $\frac{3}{5}$ and 4?
- Explain how the number line can be used to find the product.

Enter your answer and your explanation in the space provided.



▼ Math symbols

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Part B

Explain how a number line can be used to find the product of $\frac{3}{5}$ and $\frac{1}{2}$.

Enter your explanation in the space provided.



▼ Math symbols

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Difficulty Order	Evidence Statement	Common Core State Standards	Domains	Source
6	5.C.2-2	OGL	Reasoning	

Pending New PARCC Released Test Items

Difficulty Order	Evidence Statement	Common Core State Standards	Domain	Source
7	5.C.8-2	5.MD.C.5.C OGL	Reasoning	

Pending New PARCC Released Test Items

Difficulty Order	Evidence Statement	Common Core State Standards	Domain	Source
8	5.C.2-3	OGL	Reasoning	PARCC Released Items Spring 2017

6.

Kerry cut an 8-foot-long board into 6 pieces that are equal in length.

Part A

Represent this problem as a fraction.

Enter your answer as a fraction in the boxes.

Part B

Explain how you can use multiplication to prove that your answer from Part A is correct. Include an equation in your explanation.

Enter your explanation in the space provided.

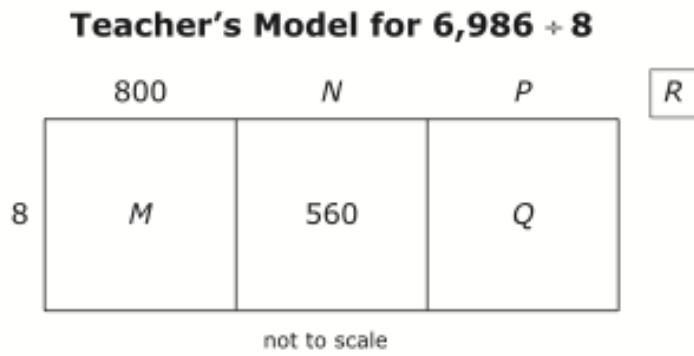


▼ Math symbols

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Difficulty Order	Evidence Statement	Common Core State Standards	Domain	Source
9	5.C.4-3	OGL	Reasoning	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

27. A teacher drew an area model to find the value of $6,986 \div 8$.



- Determine the number that each letter in the model represents and explain each of your answers.
- Write the quotient and remainder for $6,986 \div 8$.
- Explain how to use multiplication to check that the quotient is correct. You may show your work in your explanation.

Enter your answers and your explanations in the space provided.

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
10	5.MD.1-2	5.MD.A.1	Measurement & Data	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

Use the information provided to answer Part A and Part B for question 40.

Tom has a water tank that holds 5 gallons of water.

40. Part A

Tom uses water from a full tank to fill 6 bottles that each hold 16 ounces and a pitcher that holds $\frac{1}{2}$ gallon.

How many ounces of water are left in the water tank?

Enter your answer in the box.

Part B

Tom drinks 4 pints of water a day.

How many full tanks of water will he drink in 30 days?

Enter your answer in the box.

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
10	5.MD.1-2	5.MD.A.1	Measurement & Data	PARCC Released Items Spring 2017

34.

Tanya buys 12 water bottles. Of those bottles, 5 hold 300 milliliters each and 7 hold 1.5 liters each.

Part A

How much water, in milliliters, does Tanya buy?

Enter your answer in the box.

Part B

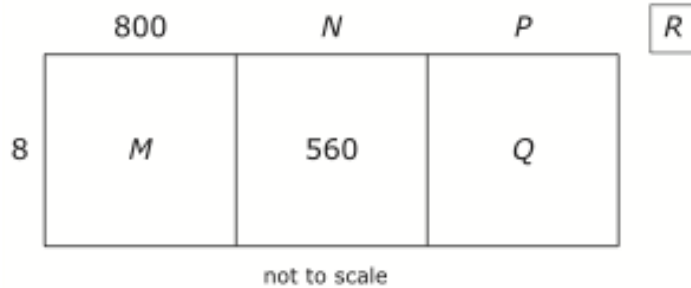
How much water, in liters, does Tanya buy?

Enter your answer in the box.

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
11	5.C.2-1	5.NBT.B.6	Reasoning	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

27. A teacher drew an area model to find the value of $6,986 \div 8$.

Teacher's Model for $6,986 \div 8$



- Determine the number that each letter in the model represents and explain each of your answers.
- Write the quotient and remainder for $6,986 \div 8$.
- Explain how to use multiplication to check that the quotient is correct. You may show your work in your explanation.

Enter your answers and your explanations in the space provided.

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
12	5.C.7-3	OGL	Reasoning	

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Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
13	5.NBT.7-4	5.NBT.B.7	Number & Operations in Base Ten	

Pending New PARCC Released Test Items

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
14	5.D.1	OGL	Modeling	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

15. Greg is volunteering at a track meet. He is in charge of providing the bottled water. Greg knows these facts:

- The track meet will last 3 days.
- There will be 117 athletes, 7 coaches, and 4 judges attending the track meet.
- One case of bottled water contains 24 bottles.

The table shows the number of bottles of water each athlete, coach, and judge will get for each day of the track meet.

Bottled Water for Track Meet

Person Attending	Number of Bottles
Athlete	4
Coach	3
Judge	2

What is the **fewest** number of cases of bottled water Greg will need to provide for all the athletes, coaches, and judges at the track meet? Show your work or explain how you found your answer using equations.

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

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
14	5.D.1	OGL	Modeling	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

24. An egg farm packages 264 total cartons of eggs each month. The farm has 3 different sizes of cartons.

- The small carton holds 8 eggs, and $\frac{1}{6}$ of the total cartons are small.
- The medium carton holds 12 eggs, and $\frac{2}{3}$ of the total cartons are medium.
- The large carton holds 18 eggs, and the rest of the total cartons are large.

Determine how many of each size of carton is needed each month. Then determine how many eggs are needed to fill the 264 cartons. Show your work or explain your answers.

Enter your answers and your work or explanations in the space provided.

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
14	5.D.1	OGL	Modeling	PARCC Released Items Spring 2017

11.

One section of a beach has a total of 180 people. Of these 180 people, $\frac{4}{9}$ are wearing a hat, and $\frac{2}{5}$ of the people wearing hats are also wearing sunglasses. How many people in that section of beach are wearing both a hat and sunglasses? How many people are wearing a hat but not wearing sunglasses? Show your work or explain your answers.

Enter your answers and your work or explanations in the space provided.



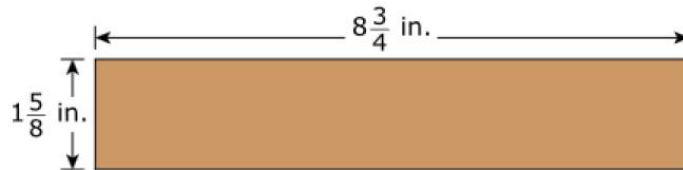
▼ Math symbols

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\$	°	?	

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
14	5.D.1	OGL	Modeling	PARCC Released Items Spring 2017

20.

A piece of paper is in the shape of a rectangle. The piece of paper is $1\frac{5}{8}$ inches (in.) wide and $8\frac{3}{4}$ in. long.



A student cuts the piece of paper in the following order:

- The student cuts off $\frac{3}{4}$ inch from the width.
- The student cuts off $\frac{3}{4}$ inch from the length.
- The student cuts the remaining piece of paper into 12 equally long pieces of paper.

What is the area of each of the 12 equally long pieces of paper? Explain your answer completely and show all your work. Include in your explanation an equation you can use to find the area of each of the 12 equally long pieces of paper.

Enter your answer, your explanation, your work, and your equation in the space provided.



▼ Math symbols

+	-	×	÷
$\frac{\square}{\square}$	$\frac{\square}{\square}$	(·)	[·]
=	<	>	≠
\$	°	?	

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
15	5.C.3	OGL	Reasoning	

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Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
16	5.NF.5a	5.NF.B.5.A	Number & Operations - Fractions	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

9. Select the **two** correct statements.

- A. The product of $\frac{3}{5}$ and 4 is greater than 4.
- B. The product of $\frac{3}{5}$ and 4 is less than $\frac{3}{5}$.
- C. The product of $1\frac{1}{2}$ and 2 is greater than $1\frac{1}{2}$.
- D. The product of $1\frac{1}{2}$ and 2 is less than 2.
- E. The product of $\frac{13}{4}$ and $\frac{5}{2}$ is greater than $\frac{13}{4}$.
- F. The product of $\frac{13}{4}$ and $\frac{5}{2}$ is less than $\frac{5}{2}$.

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
16	5.NF.5a	5.NF.B.5.A	Number & Operations - Fractions	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

9. Select the **two** correct statements.

- A. The product of $\frac{3}{5}$ and 4 is greater than 4.
- B. The product of $\frac{3}{5}$ and 4 is less than $\frac{3}{5}$.
- C. The product of $1\frac{1}{2}$ and 2 is greater than $1\frac{1}{2}$.
- D. The product of $1\frac{1}{2}$ and 2 is less than 2.
- E. The product of $\frac{13}{4}$ and $\frac{5}{2}$ is greater than $\frac{13}{4}$.
- F. The product of $\frac{13}{4}$ and $\frac{5}{2}$ is less than $\frac{5}{2}$.

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
16	5.NF.5a	5.NF.B.5.A	Number & Operations - Fractions	PARCC Released Items Spring 2017

7.

Which comparison is correct?

- A. $\frac{1}{3} \times 45 < 45$
- B. $60 < 60 \times \frac{3}{4}$
- C. $20 \times \frac{1}{5} > 20$
- D. $25 < \frac{2}{3} \times 25$

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
17	5.NBT.A.Int.1	5.NBT.A.2 5.NBT.A.3.A 5.NBT.A.3.B 5.NBT.A.4	Number & Operations in Base Ten	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

25. Part A

Select the **two** equations that are correct when the number 20 is entered in the box.

A. $\square \times 85 = 1,700$

B. $\square + 4 = 50$

C. $1,500 \div \square = 75$

D. $120 \times 6 = \square$

E. $\square \times 50 = 100$

Part B

Select the **two** equations that are correct when the number 200 is entered in the box.

A. $\square \times 85 = 17,000$

B. $\square + 40 = 50$

C. $15,000 \div \square = 75$

D. $1,200 \times 6 = \square$

E. $\square \times 50 = 1,000$

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
17	5.NBT.A.Int.1	5.NBT.A.2 5.NBT.A.3.A 5.NBT.A.3.B 5.NBT.A.4	Number & Operations in Base Ten	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

Part A

Enter your answer in the box.

$6.3 \times 0.1 =$

Part B

Enter your answer in the box.

$6.3 \div 0.1 =$

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
18	5.D.2	SHK	Modeling	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

32. Which **two** conversions are correct?

- A. $7 \text{ mm} = 70 \text{ cm}$
- B. $7 \text{ cm} = 0.07 \text{ m}$
- C. $7,000 \text{ m} = 7 \text{ km}$
- D. $0.7 \text{ cm} = 70 \text{ mm}$
- E. $7 \text{ m} = 7,000 \text{ km}$

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
19	5.MD.1-1	5.MD.A.1	Measurement & Data	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

Complete each conversion by dragging and dropping the correct number into each box.

7 mm = cm

7 cm = m

m = 7 km

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
20	5.C.4-4	OGL	Reasoning	

Pending New PARCC Released Test Items

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
21	5.NBT.4	5.NBT.A.4	Number & Operations in Base Ten	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

39. Which **two** statements about rounding decimals are correct?

- A.** The number 5.066 rounded to the nearest hundredth is 5.07.
- B.** The number 5.074 rounded to the nearest hundredth is 5.08.
- C.** The number 5.117 rounded to the nearest hundredth is 5.10.
- D.** The number 5.108 rounded to the nearest hundredth is 5.11.
- E.** The number 5.025 rounded to the nearest hundredth is 5.02.

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
21	5.NBT.4	5.NBT.A.4	Number & Operations in Base Ten	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2015

Drag and drop one number into each box. When you are finished, the number inside each box should match the number below the box when rounded to the nearest hundredth.

5.025 5.079 5.103 5.117 5.066 5.108

5.07 5.08 5.10 5.11

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
22	5.NF.6-1	5.NF.B.6	Number & Operations - Fractions	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

24. An egg farm packages 264 total cartons of eggs each month. The farm has 3 different sizes of cartons.

- The small carton holds 8 eggs, and $\frac{1}{6}$ of the total cartons are small.
- The medium carton holds 12 eggs, and $\frac{2}{3}$ of the total cartons are medium.
- The large carton holds 18 eggs, and the rest of the total cartons are large.

Determine how many of each size of carton is needed each month. Then determine how many eggs are needed to fill the 264 cartons. Show your work or explain your answers.

Enter your answers and your work or explanations in the space provided.

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
22	5.NF.6-1	5.NF.B.6	Number & Operations - Fractions	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

37. Jen makes a rectangular banner. It is $\frac{3}{4}$ yard long and $\frac{1}{4}$ yard wide.

What is the area, in square yards, of the banner?

A. $\frac{3}{16}$

B. $\frac{3}{8}$

C. 1

D. 3

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
23	5.G.3	5.G.B.3	Geometry	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

38. Which explanation about figures is correct?

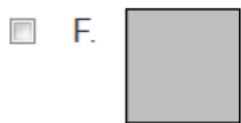
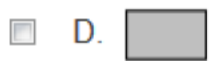
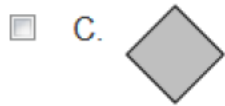
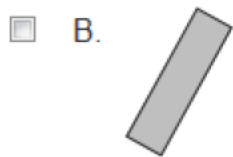
- A.** All rhombuses are parallelograms. Parallelograms have 2 pairs of parallel sides.
Therefore, all rhombuses have 2 pairs of parallel sides.
- B.** All rhombuses are parallelograms. Parallelograms have exactly 1 pair of parallel sides.
Therefore, all rhombuses have exactly 1 pair of parallel sides.
- C.** Only some rhombuses are parallelograms. Parallelograms have 2 pairs of parallel sides.
Therefore, only some rhombuses have 2 pairs of parallel sides.
- D.** Only some rhombuses are parallelograms. Parallelograms have exactly 1 pair of parallel sides.
Therefore, only some rhombuses have exactly 1 pair of parallel sides.

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
23	5.G.3	5.G.B.3	Geometry	PARCC Released Items Spring 2017

32.

Students in Mrs. Johnson's class drew several different two-dimensional figures.

Select the **four** two-dimensional figures that are rectangles.



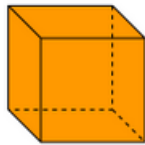
Difficulty Order	Evidence Statement	Common Core State Standard	Domains	Source
24	5.Int.2	5.MD.C.5 5.NBT.B.5 5.OA.A.2	Measurement & Data Number & Operations in Base Ten Operations & Algebraic Thinking	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2015

This table shows the three different ways that toy animals are packaged at a factory.

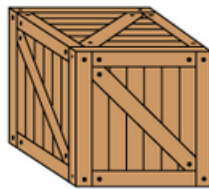
Package Type	Amount in the Package
Bag	36 toy animals
Box	48 bags
Crate	18 boxes



Bag
36 toy animals



Box
48 bags



Crate
18 boxes
not to scale

Part A

What is the total number of toy animals in one crate?

Enter your answer in the box.

 toy animals

Part B

One bag of toy animals weighs 12 ounces. What is the total weight, in ounces, of the bags of toy animals in one crate?

Enter your answer in the box.

 ounces

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
25	5.NBT.1	5.NBT.A.1	Number & Operations in Base Ten	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

5. Which statement correctly compares two values?

A. The value of the 6 in 26.495 is $\frac{1}{10}$ the value of the 6 in 17.64.

B. The value of the 6 in 26.495 is 10 times the value of the 6 in 17.64.

C. The value of the 6 in 26.495 is $\frac{1}{100}$ the value of the 6 in 17.64.

D. The value of the 6 in 26.495 is 100 times the value of the 6 in 17.64.

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
25	5.NBT.1	5.NBT.A.1	Number & Operations in Base Ten	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

For each sentence, select the option from the drop-down menu that correctly compares the values.

The value of the 6 in 26.495 is the value of the 6 in 17.64.

- 1/10
- 10 times
- 1/100
- 100 times

The value of the 3 in 0.931 is the value of the 3 in 0.384.

- 1/10
- 10 times
- 1/100
- 100 times

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
25	5.NBT.1	5.NBT.A.1	Number & Operations in Base Ten	PARCC Released Items Spring 2017

3.

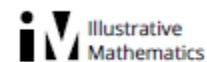
If the 9 were moved two places to the left, which statement describes the relationship between the present value of 9 and the new value of 9?

7,869

- A. The new value would be 100 times the present value.
- B. The new value would be 10 times the present value.
- C. The new value would be $\frac{1}{10}$ times the present value.
- D. The new value would be $\frac{1}{100}$ times the present value.

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
26	5.NF.1-2	5.NF.A.1	Number & Operations - Fractions	Illustrative Mathematics

5.NF Finding Common Denominators to Add



- a. To add fractions, we usually first find a common denominator.
- i. Find two different common denominators for $\frac{1}{5}$ and $\frac{1}{15}$.
 - ii. Use each common denominator to find the value of $\frac{1}{5} + \frac{1}{15}$. Draw a picture that shows your solution.
- b. Find $\frac{3}{4} + \frac{1}{5}$. Draw a picture that shows your solution.
- c. Find $\frac{14}{8} + \frac{15}{12}$.



5.NF Finding Common Denominators to Add
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Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
26	5.NF.1-2	5.NF.A.1	Number & Operations - Fractions	PARCC Released Items Spring 2017

22.

Solve.

Enter your answer as a fraction in the boxes.

$$\frac{1}{4} + \frac{1}{5} + \frac{1}{6} = \frac{\boxed{}}{\boxed{}}$$

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
27	5.OA.2-1	5.OA.A.2	Operations & Algebraic Thinking	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

13. Which expression matches the statement, "the sum of 2 and 4 subtracted from 9"?

- A. $2 + 9 - 4$
- B. $9 - 2 + 4$
- C. $9 - (2 + 4)$
- D. $(2 + 4) - 9$

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
27	5.OA.2-1	5.OA.A.2	Operations & Algebraic Thinking	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

Drag and drop the expression that matches each statement into the correct box. Each expression may be used more than once or not at all.

the sum of 2 and 4
subtracted from 9

add 2 and 4, then
subtract 9

subtract 2 from 9,
then add 4

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
28	5.NF.2-2	5.NF.A.2	Number & Operations - Fractions	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

17. Len walks $\frac{3}{10}$ mile in the morning to school. He walks $\frac{2}{5}$ mile in the afternoon to a friend's house.

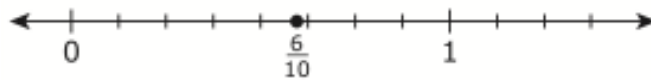
Len says that he walks a total of $\frac{5}{15}$ mile in the morning and afternoon.

Which **two** statements are true?

- A. Since $\frac{3}{10}$ plus $\frac{2}{5}$ is $\frac{5}{15}$, the total of $\frac{5}{15}$ is reasonable.
- B. Since $\frac{5}{15}$ is less than $\frac{2}{5}$, the total of $\frac{5}{15}$ is not reasonable.
- C. The fractions $\frac{5}{15}$, $\frac{3}{10}$, and $\frac{2}{5}$ are all less than $\frac{1}{2}$, so the total of $\frac{5}{15}$ is reasonable.
- D. The fraction $\frac{5}{15}$ is $\frac{1}{3}$, and $\frac{1}{3}$ is greater than $\frac{3}{10}$. Since $\frac{5}{15}$ is greater than one of the addends, the total of $\frac{5}{15}$ is reasonable.
- E. The fractions $\frac{3}{10}$ and $\frac{2}{5}$ are each greater than $\frac{1}{4}$, so the total must be greater than $\frac{1}{2}$. The fraction $\frac{5}{15}$ is less than $\frac{1}{2}$, so the total of $\frac{5}{15}$ is not reasonable.

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
28	5.NF.2-2	5.NF.A.2	Number & Operations - Fractions	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

36. On Saturday, Craig rode his bike $\frac{5}{8}$ of a mile. On Sunday, he rode his bike $\frac{1}{2}$ of a mile. Craig added $\frac{5}{8}$ and $\frac{1}{2}$ to find the total distance, in miles, he rode his bike on the two days. Craig said $\frac{5}{8} + \frac{1}{2} = \frac{6}{10}$ and plotted $\frac{6}{10}$ on this number line.



- Explain why Craig's answer is not reasonable.
- Find the total distance, in miles, Craig rode on his bike on Saturday and Sunday.
- Explain how to use the number line to show your answer is correct.

Enter your answer and explanations in the space provided.

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
28	5.NF.2-2	5.NF.A.2	Number & Operations - Fractions	PARCC Released Items Spring 2017

13.

Matt went running on four days. The table shows the distance he ran on each day.

Day	Distance (miles)
Sunday	$2\frac{1}{2}$
Monday	$1\frac{5}{6}$
Tuesday	$\frac{5}{8}$
Wednesday	$1\frac{2}{3}$

On which two days did Matt run an estimated total distance that was closest to 3 miles?

- A. Sunday and Tuesday
- B. Monday and Tuesday
- C. Monday and Wednesday
- D. Sunday and Wednesday

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
29	5.C.1-1	OGL	Reasoning	

Pending New PARCC Released Test Items

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
30	5.G.4	5.G.B.4	Geometry	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

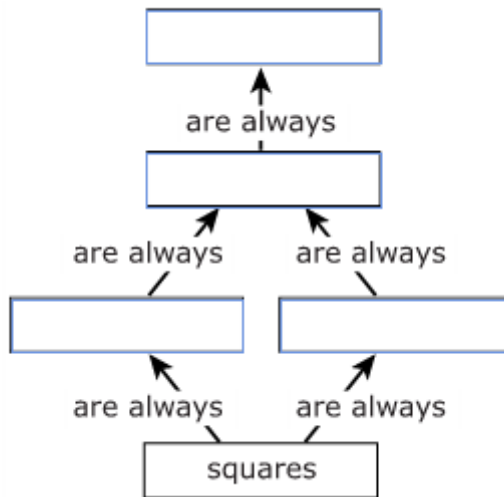
12. Which figure is always a rectangle?

- A. square
- B. rhombus
- C. quadrilateral
- D. parallelogram

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
30	5.G.4	5.G.B.4	Geometry	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

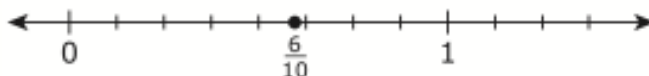
Drag and drop the names to complete the diagram that shows the relationship among the figures listed. Each category will be used only once.

rhombuses	rectangles
parallelograms	quadrilaterals



Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
31	5.C.5-1	OGL	Reasoning	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

36. On Saturday, Craig rode his bike $\frac{5}{8}$ of a mile. On Sunday, he rode his bike $\frac{1}{2}$ of a mile. Craig added $\frac{5}{8}$ and $\frac{1}{2}$ to find the total distance, in miles, he rode his bike on the two days. Craig said $\frac{5}{8} + \frac{1}{2} = \frac{6}{10}$ and plotted $\frac{6}{10}$ on this number line.



- Explain why Craig's answer is not reasonable.
- Find the total distance, in miles, Craig rode on his bike on Saturday and Sunday.
- Explain how to use the number line to show your answer is correct.

Enter your answer and explanations in the space provided.

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
32	5.NBT.7-2	5.NBT.B.7	Number & Operations in Base Ten	

Pending New PARCC Released Test Items

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
33	5.NBT.Int.1	5.NBT.A.2 5.NBT.B.5 5.NBT.B.7	Number & Operations in Base Ten	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

25. Part A

Select the **two** equations that are correct when the number 20 is entered in the box.

A. $\square \times 85 = 1,700$

B. $\square + 4 = 50$

C. $1,500 \div \square = 75$

D. $120 \times 6 = \square$

E. $\square \times 50 = 100$

Part B

Select the **two** equations that are correct when the number 200 is entered in the box.

A. $\square \times 85 = 17,000$

B. $\square + 40 = 50$

C. $15,000 \div \square = 75$

D. $1,200 \times 6 = \square$

E. $\square \times 50 = 1,000$

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
33	5.NBT.Int.1	5.NBT.A.2 5.NBT.B.5 5.NBT.B.7	Number & Operations in Base Ten	PARCC Released Items Spring 2017

21.

Solve these equations.

Part A

Enter your answers in the boxes.

$200 \times 10 = \boxed{}$

$200 \times 100 = \boxed{}$

$200 \times 1,000 = \boxed{}$

Part B

Enter your answers in the boxes.

$200 \times 0.1 = \boxed{}$

$200 \times 0.01 = \boxed{}$

$200 \times 0.001 = \boxed{}$

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
34	5.NF.2-1	5.NF.A.2	Number & Operations - Fractions	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

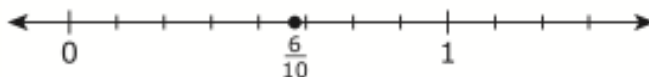
10. Isabel lives $\frac{3}{4}$ mile from school. Janet lives $\frac{2}{3}$ mile from school.

How much farther, in miles, does Isabel live from school than Janet?

- A. $\frac{1}{4}$
- B. $\frac{1}{3}$
- C. $\frac{1}{7}$
- D. $\frac{1}{12}$

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
34	5.NF.2-1	5.NF.A.2	Number & Operations - Fractions	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

36. On Saturday, Craig rode his bike $\frac{5}{8}$ of a mile. On Sunday, he rode his bike $\frac{1}{2}$ of a mile. Craig added $\frac{5}{8}$ and $\frac{1}{2}$ to find the total distance, in miles, he rode his bike on the two days. Craig said $\frac{5}{8} + \frac{1}{2} = \frac{6}{10}$ and plotted $\frac{6}{10}$ on this number line.



- Explain why Craig's answer is not reasonable.
- Find the total distance, in miles, Craig rode on his bike on Saturday and Sunday.
- Explain how to use the number line to show your answer is correct.

Enter your answer and explanations in the space provided.

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
35	5.MD.5c	5.MD.C.5.C	Measurement & Data	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

Use the information provided to answer Part A and Part B for question 18.

There are two tanks at the aquarium, Tank A and Tank B. Each tank has two sections.

18. Part A

The volume of one section of Tank A is 24 cubic feet. The volume of the other section of Tank A is 96 cubic feet.

What is the total volume, in cubic feet, of Tank A?

- A. 4
- B. 72
- C. 120
- D. 2,304

Part B

Tank B has the same volume as Tank A.

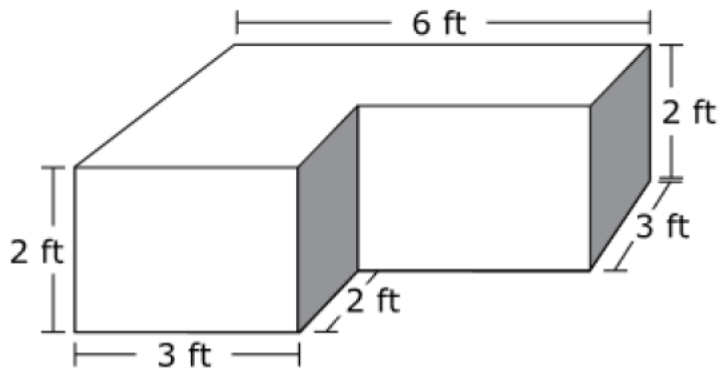
The volume of one section of Tank B is 45 cubic feet. What is the volume, in cubic feet, of the other section of Tank B?

Enter your answer in the box.

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
35	5.MD.5c	5.MD.C.5.C	Measurement & Data	PARCC Released Items Spring 2017

14.

Trevor is making a flower box in the shape shown in the diagram.



Trevor will fill the flower box completely with soil.

Part A

What volume of soil, in cubic feet, does Trevor need?

Enter your answer in the box.

Part B

Trevor only has enough soil to fill the flower box 1 foot from the top. How much soil, in cubic feet, does he have?

Enter your answer in the box.

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
36	5.NF.3-2	5.NF.B.3	Number & Operations - Fractions	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

Use the information provided to answer Part A and Part B for question 22.

For a family gathering, Brittany made 5 meat loaves using 9 pounds of ground beef. She also made 14 hamburgers using 4 pounds of ground beef.

22. Part A

Each meat loaf was made with the same amount of ground beef.

Which of these is closest to the amount of ground beef in each meat loaf?

- A. $\frac{1}{2}$ pound
- B. 1 pound
- C. $1\frac{1}{2}$ pounds
- D. 2 pounds

Part B

Each hamburger was made with the same amount of ground beef.

Which of these is closest to the amount of ground beef in each hamburger?

- A. $\frac{1}{2}$ pound
- B. $\frac{1}{4}$ pound
- C. $\frac{3}{4}$ pound
- D. 1 pound

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
36	5.NF.3-2	5.NF.B.3	Number & Operations - Fractions	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

Emma has a board that is 5 feet long. She cuts the board into 6 equal pieces.

Which equation shows how to find the length, in feet, of each piece of the board?

- A. $5 \times 6 = 30$
- B. $6 - 5 = 1$
- C. $6 \div 5 = 1\frac{1}{5}$
- D. $5 \div 6 = \frac{5}{6}$

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
36	5.NF.3-2	5.NF.B.3	Number & Operations - Fractions	PARCC Released Items Spring 2017

16.

A 28-inch ribbon is cut into 8 pieces that are all the same length. What is the length of each piece?

- A. $3\frac{1}{8}$ inches
- B. $3\frac{1}{2}$ inches
- C. $4\frac{1}{7}$ inches
- D. $4\frac{1}{2}$ inches

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
36	5.NF.3-2	5.NF.B.3	Number & Operations - Fractions	PARCC Released Items Spring 2017

18.

Chloe divided a 40-pound bag of potting soil equally among 7 flowerpots.

Enter your answers in the boxes in Part A and Part B.

Part A

How many pounds of potting soil did Chloe put in each pot?

Enter your answer as a fraction in the boxes.

Part B

The number of pounds of potting soil Chloe put in each pot falls between which two whole numbers?

Enter your answer in the boxes.

 and

Difficulty Order	Evidence Statement	Common Core State Standard	Domains	Source
37	5.C.7-4	4.NBT.B.5 4.NF.B.3.A SHK	Number & Operation in Base Ten Number & Operations-Fractions Reasoning	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

Use the information provided to answer Part A and Part B for question 33.

Nick measured two crickets in science class. The lengths of the two crickets are shown.

- Cricket A: $\frac{3}{8}$ inch
- Cricket B: $\frac{5}{8}$ inch

The science teacher asked Nick to compare the length of each cricket to $\frac{1}{2}$ inch.

33. Part A

Nick claims that the length of each cricket is greater than $\frac{1}{2}$ because the numerator of each cricket length is greater than the numerator in $\frac{1}{2}$.

Compare $\frac{1}{2}$ inch to the length of each cricket using the $>$, $<$, or $=$ symbol.

Then explain whether Nick's reasoning is correct.

Enter your comparisons and your explanation in the space provided.

Part B

Nick recorded the distance each cricket jumped.

- Distance for cricket A: $1\frac{3}{4}$ feet
- Distance for cricket B: $3\frac{2}{4}$ feet

Nick claims that cricket B jumped $2\frac{1}{4}$ feet farther than cricket A because the difference between the whole numbers is 2 and the difference between the numerators is 1.

- Explain why Nick's reasoning is incorrect.
- What is the correct difference, in feet, between the distance cricket A jumped and the distance cricket B jumped?

Enter your explanation and your answer in the space provided.

Difficulty Order	Evidence Statement	Common Core State Standard	Domains	Source
37	5.C.7-4	4.NBT.B.5 4.NF.B.3.A SHK	Number & Operation in Base Ten Number & Operations-Fractions Reasoning	PARCC Released Items Spring 2017

28.

Stan and Lila are finding the sum and the difference of $4\frac{3}{8}$ and $2\frac{7}{8}$.

Part A

Stan found a sum of $6\frac{7}{8}$. He stated that he added the whole numbers and used $\frac{7}{8}$ as the fraction part because it was the greater fraction.

- Explain what error Stan made in his work.
- Find the correct sum and show or explain your work.

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



▼ Math symbols

+	-	×	÷
$\frac{\square}{\square}$	$\square \frac{\square}{\square}$	(.)	[]
=	<	>	≠
\$	°	?	

Continued on next page.

Difficulty Order	Evidence Statement	Common Core State Standard	Domains	Source
37	5.C.7-4	4.NBT.B.5 4.NF.B.3.A SHK	Number & Operation in Base Ten Number & Operations-Fractions Reasoning	PARCC Released Items Spring 2017

Part B

Lila got a difference of $2\frac{4}{8}$. She found the difference by using the following steps:

$$4\frac{3}{8} = \frac{8}{8} + \frac{8}{8} + \frac{8}{8} + \frac{8}{8} - \frac{3}{8} = \frac{29}{8}$$

$$2\frac{7}{8} = \frac{8}{8} + \frac{8}{8} - \frac{7}{8} = \frac{9}{8}$$

$$\frac{29}{8} - \frac{9}{8} = \frac{20}{8} = 2\frac{4}{8}$$

- Explain what error Lila made in her work.
- Find the correct difference and show or explain your work.

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



▼ Math symbols

+	-	×	÷
$\frac{\square}{\square}$	$\frac{\square}{\square}$	(·)	[·]
=	<	>	≠
\$	°	?	

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
38	5.NBT.7-3	5.NBT.B.7	Number & Operations in Base Ten	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

28. Enter your answer in the box.

$$0.35 \times 1.5 =$$

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
39	5.Int.1	5.NBT.B.5	Number & Operations in Base Ten	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2015

Part A

A company sells phones for \$515.00 each.

What is the total amount of money the company earns from selling 856 phones?

Enter your answer in the box.

\$

Part B

The parts to build these phones cost \$189.00 for each phone.

What is the total cost of parts to build 856 phones?

Enter your answer in the box.

\$

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
39	5.Int.1	5.NBT.B.5	Number & Operations in Base Ten	PARCC Released Items Spring 2017

8.

Part A

Maria has 125 packages of beads. Each package contains 345 beads. How many beads does Maria have?

Enter your answer in the box.

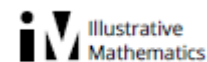
Part B

Maria is making a rectangular place mat that is 252 beads by 327 beads. How many beads are needed to make the place mat?

Enter your answer in the box.

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
40	5.NBT.2-2	5.NBT.A.2	Number & Operations in Base Ten	Illustrative Mathematics

5.NBT.1 Multiplying Decimals by 10



a. Explain why $0.4 \times 10 = 4$.

b. Explain why $3.4 \times 10 = 34$.

Draw pictures to illustrate your explanations.



5.NBT.1 Multiplying Decimals by 10
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Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
40	5.NBT.2-2	5.NBT.A.2	Number & Operations in Base Ten	PARCC Released Items Spring 2017

12.

Select the expression that has a value equivalent to 10^4 .

- A. $10 + 4$
- B. 10×4
- C. $10 \times 10 \times 10 \times 10$
- D. $4 \times 4 \times 4 \times 4 \times 4 \times 4 \times 4 \times 4 \times 4 \times 4$

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
41	5.NF.4b-1	5.NF.B.4.B	Number & Operations - Fractions	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

21. Kurt drew a rectangular maze with a length of $\frac{3}{4}$ foot and a width of $\frac{5}{12}$ foot.
What is the area, in square feet, of Kurt's maze?

- A. $\frac{15}{48}$
- B. $\frac{8}{16}$
- C. $\frac{20}{36}$
- D. $\frac{15}{16}$

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
41	5.NF.4b-1	5.NF.B.4.B	Number & Operations - Fractions	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2015

Kurt drew a rectangular maze with a length of $\frac{3}{4}$ foot and a width of $\frac{5}{12}$ foot.

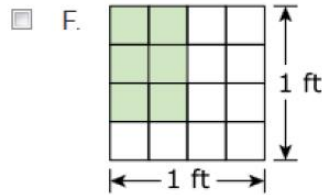
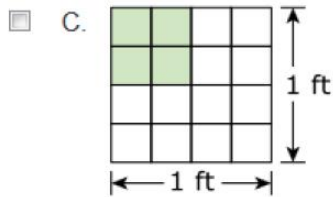
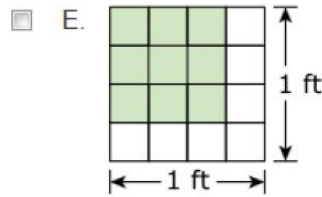
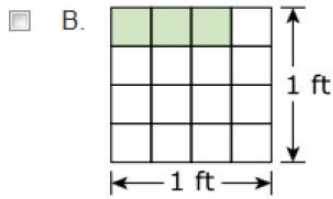
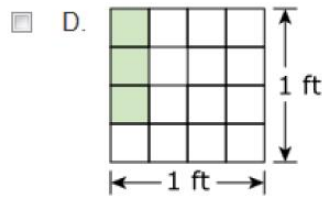
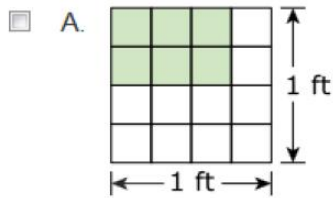
What is the area, in square feet, of Kurt's maze? Enter your answer in the space provided. Enter only your fraction.

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
41	5.NF.4b-1	5.NF.B.4.B	Number & Operations - Fractions	PARCC Released Items Spring 2017

17.

Ella has a rectangle that has a side with a length of $\frac{1}{4}$ foot and a side with a length of $\frac{3}{4}$ foot. She shaded a model to show that the area of her rectangle is $\frac{3}{16}$ square foot. Select each model that represents Ella's rectangle.

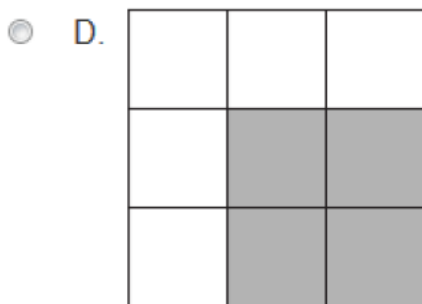
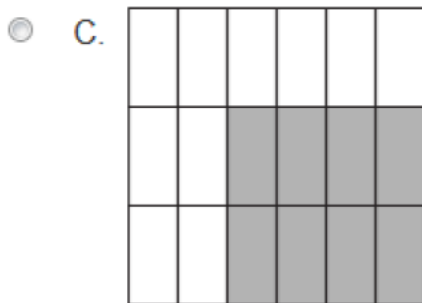
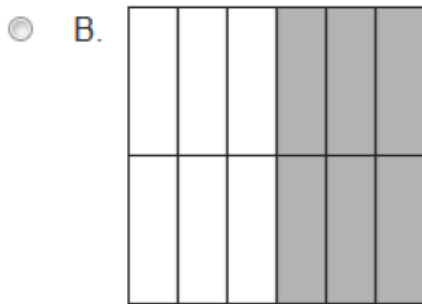
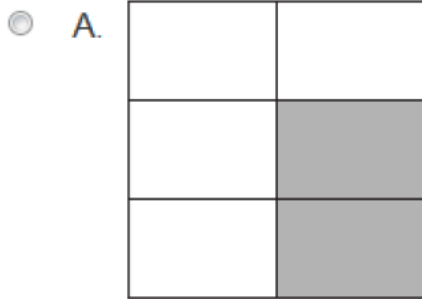
Select the **two** correct answers.



Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
41	5.NF.4b-1	5.NF.B.4.B	Number & Operations - Fractions	PARCC Released Items Spring 2017

31.

Which model represents the multiplication problem $\frac{2}{3} \times \frac{1}{2} = \frac{2}{6}$?



Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
42	5.NBT.3a	5.NBT.A.3.A	Number & Operations in Base Ten	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

16. Which of these are equal to 83.041?

Select the **two** correct answers.

A. eighty-three and forty-one tenths

B. $8 \times 10 + 3 \times 1 + 4 \times \frac{1}{10} + 1 \times \frac{1}{100}$

C. eighty-three and forty-one hundredths

D. $8 \times 10 + 3 \times 1 + 4 \times \frac{1}{100} + 1 \times \frac{1}{1,000}$

E. eighty-three and forty-one thousandths

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
42	5.NBT.3a	5.NBT.A.3.A	Number & Operations in Base Ten	PARCC Released Items Spring 2017

19.

Which expression shows 293.64 in expanded form?

- A. $2 \times 10 + 9 \times 1 + 3 \times \frac{1}{10} + 6 \times \frac{1}{100} + 4 \times \frac{1}{1,000}$
- B. $2 \times 100 + 9 \times 10 + 3 \times 1 + 6 \times \frac{1}{10} + 4 \times \frac{1}{100}$
- C. $2 \times 100 + 9 \times 10 + 3 \times 1 + 6 \times \frac{1}{100} + 4 \times \frac{1}{1,000}$
- D. $2 \times 1,000 + 9 \times 100 + 3 \times 10 + 6 \times 1 + 4 \times \frac{1}{10}$

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
43	5.NF.7c	5.NF.B.7.C	Number & Operations - Fractions	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

29. Jim uses ribbon to make bookmarks. Jim has 9 feet of ribbon. He uses $\frac{1}{3}$ foot of ribbon to make each bookmark.

What is the total number of bookmarks Jim makes with all 9 feet of ribbon?

Enter your answer in the box.

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
43	5.NF.7c	5.NF.B.7.C	Number & Operations - Fractions	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2015

Mr. Edwards is making sandwiches. He has 4 pounds of cheese. He puts $\frac{1}{8}$ pound of cheese in each sandwich.

What is the total number of sandwiches Mr. Edwards made using all 4 pounds of cheese?

Enter your answer in the box.

sandwiches

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
43	5.NF.7c	5.NF.B.7.C	Number & Operations - Fractions	PARCC Released Items Spring 2017

24.

A $\frac{1}{2}$ -pound bag of granola will be shared equally among 8 friends. How many pounds of granola will each friend receive?

- A. $\frac{1}{4}$
- B. $\frac{1}{16}$
- C. 4
- D. 16

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
44	5.NF.1-3	5.NF.A.1	Number & Operations -Fractions	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

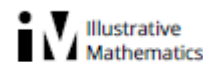
26. Solve.

$$\frac{3}{4} + \frac{4}{5} - \frac{7}{10} =$$

- A. $\frac{7}{20}$
- B. $\frac{14}{20}$
- C. $\frac{17}{20}$
- D. $\frac{21}{20}$

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
45	5.NF.7b	5.NF.B.7.B	Number & Operations - Fractions	Illustrative Mathematics

5.NF Origami Stars



Avery and Megan are cutting paper to make origami stars. They need $\frac{1}{5}$ of a sheet of paper in order to make each star. If they have 6 sheets of paper, how many stars can they make? Explain your work and draw a picture to support your reasoning.



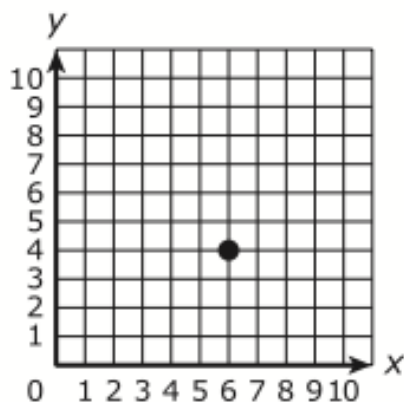
Typeset May 4, 2016 at 20:37:03. Licensed by Illustrative Mathematics under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License .

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
46	5.G.1	5.G.A.1	Geometry	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

6. Select the **three** statements that correctly describe the coordinate system.
- A. The x - and y -axes intersect at 10.
 - B. The x - and y -axes intersect at the origin.
 - C. The x - and y -axes are parallel number lines.
 - D. The x - and y -axes are perpendicular number lines.
 - E. The x - and y -coordinates are used to locate points on a coordinate plane.

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
46	5.G.1	5.G.A.1	Geometry	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

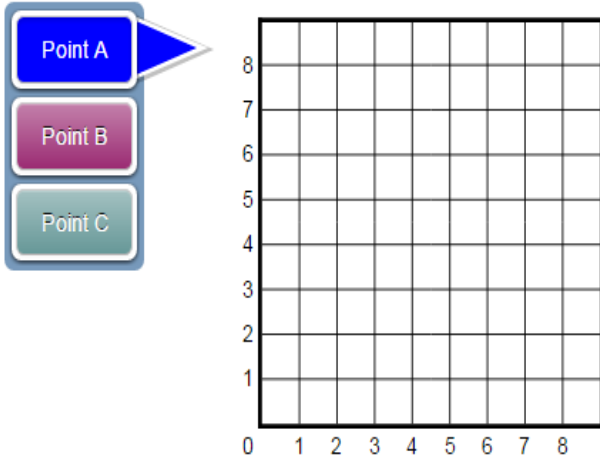
23. Select the **three** statements that correctly describe the point plotted on the coordinate plane.



- A. The point is located at the ordered pair (4, 6).
- B. The point is located at the ordered pair (6, 4).
- C. The x-coordinate is 6 and the y-coordinate is 4.
- D. The x-coordinate is 4 and the y-coordinate is 6.
- E. The point is 4 units to the right of the origin on the x-axis and 6 units up from the origin on the y-axis.
- F. The point is 6 units to the right of the origin on the x-axis and 4 units up from the origin on the y-axis.

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
46	5.G.1	5.G.A.1	Geometry	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

Graph points *A*, *B*, and *C* on the coordinate plane. Point *A* should be located at $(4, 6)$, point *B* should be located at $(6, 4)$, and point *C* should be located at $(3, 0)$. Select the "Point A" button and plot the point. Select the "Point B" button and plot the point. Select the "Point C" button and plot the point. Be sure to graph all **three** points.



Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
46	5.G.1	5.G.A.1	Geometry	PARCC Released Items Spring 2017

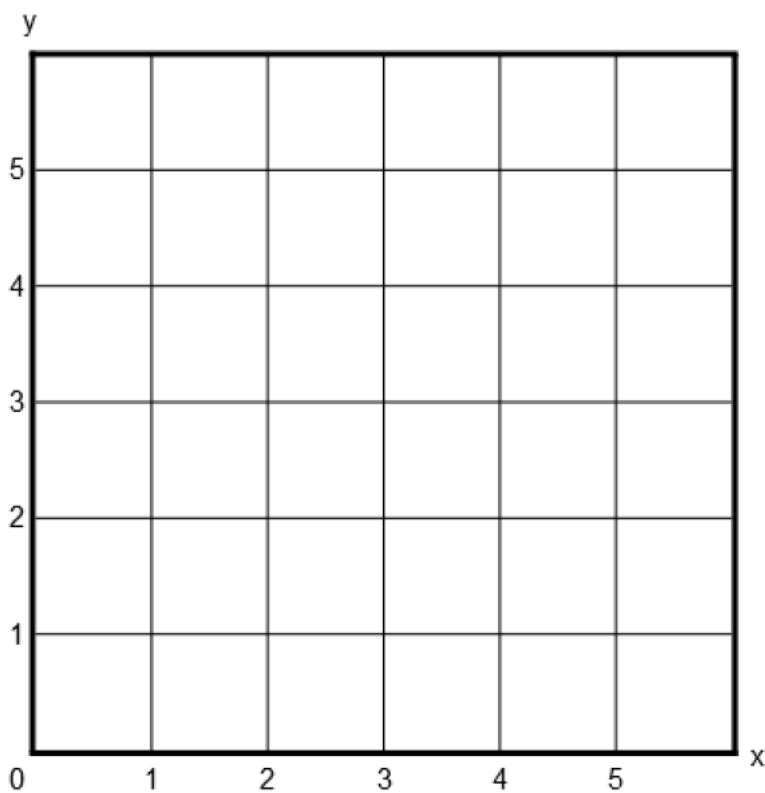
4.

Coordinates for points are shown in the table.

Point	Coordinate
<i>A</i>	(2, 5)
<i>B</i>	(1, 4)
<i>C</i>	(0, 3)
<i>D</i>	(1, 0)

Graph all the points from the table on the coordinate grid.

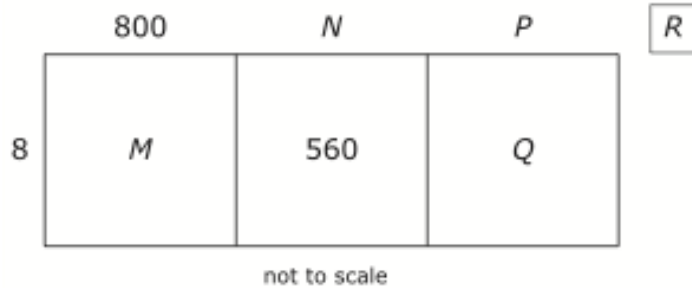
Select the places on the coordinate grid to plot the points.



Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
47	5.NBT.6	5.NBT.B.6	Number & Operations in Base Ten	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

27. A teacher drew an area model to find the value of $6,986 \div 8$.

Teacher's Model for $6,986 \div 8$



- Determine the number that each letter in the model represents and explain each of your answers.
- Write the quotient and remainder for $6,986 \div 8$.
- Explain how to use multiplication to check that the quotient is correct. You may show your work in your explanation.

Enter your answers and your explanations in the space provided.

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
47	5.NBT.6	5.NBT.B.6	Number & Operations in Base Ten	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

31. Enter your answer in the box.

$$1,534 \div 26 =$$

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
47	5.NBT.6	5.NBT.B.6	Number & Operations in Base Ten	PARCC Released Items Spring 2017

26.

What is the value of the expression $1,732 \div 4$?

- A. 408
- B. 433
- C. 476
- D. 483

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
48	5.NF.A.Int.1	5.NF.A.1 5.NF.A.2	Number & Operations - Fractions	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

Use the information provided to answer Part A and Part B for question 14.

Diana works at a clothing store. She sold $\frac{1}{5}$ of the total number of green shirts on Monday and $\frac{3}{12}$ of the total number of green shirts on Tuesday.

14. Part A

What fraction of green shirts did Diana sell on Monday and Tuesday?

- A. $\frac{8}{13}$
- B. $\frac{4}{17}$
- C. $\frac{5}{36}$
- D. $\frac{27}{60}$

Part B

Diana sold $\frac{2}{15}$ of the total number of green shirts on Wednesday. What is the difference in the fraction of the total number of green shirts that were sold on Tuesday and Wednesday?

- A. $\frac{7}{60}$
- B. $\frac{5}{27}$
- C. $\frac{1}{3}$
- D. $\frac{1}{12}$

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
48	5.NF.A.Int.1	5.NF.A.1 5.NF.A.2	Number & Operations - Fractions	PARCC Released Items Spring 2017

10.

Stella, Aaron, and Don use ribbon to decorate a room. Stella uses $\frac{5}{6}$ yard of ribbon, Aaron uses $\frac{2}{3}$ yard of ribbon, and Don uses $\frac{3}{4}$ yard of ribbon.

Part A

What is the total number of yards of ribbon Stella, Aaron, and Don use?

Enter your answer as a fraction in the boxes.

Part B

How many more yards of ribbon did Stella use than Aaron?

Enter your answer as a fraction in the boxes.

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
49	5.NF.1-1	5.NF.A.1	Number & Operations - Fractions	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

2. An expression is shown.

$$\frac{5}{6} + \frac{3}{12}$$

Which expressions have like denominators that could be used as a next step to add the two fractions?

Select the **two** correct answers.

A. $\frac{5}{6} + \frac{1}{4}$

B. $\frac{5}{6} + \frac{3}{6}$

C. $\frac{10}{12} + \frac{3}{12}$

D. $\frac{5}{12} + \frac{6}{12}$

E. $\frac{5}{12} + \frac{6}{24}$

F. $\frac{20}{24} + \frac{6}{24}$

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
49	5.NF.1-1	5.NF.A.1	Number & Operations - Fractions	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

What fraction completes the equation using a like denominator when adding $\frac{1}{3} + \frac{3}{6}$?

Drag and drop each correct number into the appropriate box.

$$\frac{1}{3} + \frac{3}{6} = \frac{\boxed{}}{\boxed{}} + \frac{3}{6}$$

1	2	4	6	12	18
---	---	---	---	----	----

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
49	5.NF.1-1	5.NF.A.1	Number & Operations - Fractions	PARCC Released Items Spring 2017

1.

Which sets of equivalent fractions can be used when adding $\frac{7}{8}$ and $\frac{5}{12}$?

Select the **three** correct answers.

- A. $\frac{12}{20}, \frac{12}{20}$
- B. $\frac{10}{24}, \frac{7}{24}$
- C. $\frac{21}{24}, \frac{10}{24}$
- D. $\frac{13}{48}, \frac{9}{48}$
- E. $\frac{42}{48}, \frac{20}{48}$
- F. $\frac{84}{96}, \frac{40}{96}$

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
50	5.NF.4a-1	5.NF.B.4.A	Number & Operations - Fractions	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

24. An egg farm packages 264 total cartons of eggs each month. The farm has 3 different sizes of cartons.

- The small carton holds 8 eggs, and $\frac{1}{6}$ of the total cartons are small.
- The medium carton holds 12 eggs, and $\frac{2}{3}$ of the total cartons are medium.
- The large carton holds 18 eggs, and the rest of the total cartons are large.

Determine how many of each size of carton is needed each month. Then determine how many eggs are needed to fill the 264 cartons. Show your work or explain your answers.

Enter your answers and your work or explanations in the space provided.

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
51	5.OA.3	5.OA.B.3	Operations & Algebraic Thinking	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2015

Which statement about the corresponding terms in both Pattern A and Pattern B is always true?

Pattern A: 0, 5, 10, 15, 20, 25, 30

Pattern B: 0, 10, 20, 30, 40, 50, 60

- A. Each term in Pattern A is 2 times the corresponding term in Pattern B.
- B. Each term in Pattern A is $\frac{1}{2}$ times the corresponding term in Pattern B.
- C. Each term in Pattern A is 5 less than the corresponding term in Pattern B.
- D. Each term in Pattern A is 10 less than the corresponding term in Pattern B.

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
52	5.MD.5b	5.MD.C.5.B	Measurement & Data	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

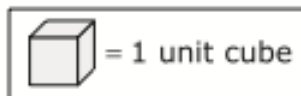
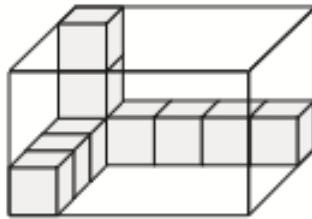
35. A cereal box has a height of 32 centimeters. It has a base with an area of 160 square centimeters.

What is the volume, in cubic centimeters, of the cereal box?

Enter your answer in the box.

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
53	5.MD.3	5.MD.C.3	Measurement & Data	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

7. What is the volume of the rectangular prism in cubic units?



Enter your answer in the box.

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
53	5.MD.3	5.MD.C.3	Measurement & Data	PARCC Released Items Spring 2017

5.

Andrew has a toy box in the shape of a cube.

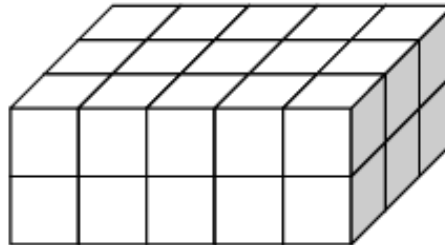
He wants to know the volume of his toy box.

Which method will give Andrew the volume of the box?

- A. Fill the box with unit cubes and count the number of cubes.
- B. Cover the top of the box with unit squares and count the number of squares.
- C. Cover each face of the box with unit squares and count the number of squares.
- D. Put a tape marked in units along the bottom edge of the box and count the number of units.

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
54	5.MD.4	5.MD.C.4	Measurement & Data	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

The right rectangular prism shown is made from cubes. Each cube is 1 cubic unit.



What is the volume, in cubic units, of the right rectangular prism?

Enter your answer in the box.

 cubic units

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
55	5.NBT.3b	5.NBT.A.3.B	Number & Operations in Base Ten	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

Select from the drop-down menus to correctly complete each comparison.

4.408 four and forty-eight thousandths

<

=

>

six hundred ninety-one and five hundredths

$$6 \times 100 + 9 \times 10 + 1 \times 1 + 8 \times \frac{1}{1,000}$$

<

=

>

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
56	5.NBT.5	5.NBT.B.5	Number & Operations in Base Ten	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

15. Greg is volunteering at a track meet. He is in charge of providing the bottled water. Greg knows these facts:

- The track meet will last 3 days.
- There will be 117 athletes, 7 coaches, and 4 judges attending the track meet.
- One case of bottled water contains 24 bottles.

The table shows the number of bottles of water each athlete, coach, and judge will get for each day of the track meet.

Bottled Water for Track Meet

Person Attending	Number of Bottles
Athlete	4
Coach	3
Judge	2

What is the **fewest** number of cases of bottled water Greg will need to provide for all the athletes, coaches, and judges at the track meet? Show your work or explain how you found your answer using equations.

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

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
56	5.NBT.5	5.NBT.B.5	Number & Operations in Base Ten	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

19. Enter your answer in the box.

$$625 \times 847 =$$

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
56	5.NBT.5	5.NBT.B.5	Number & Operations in Base Ten	PARCC Released Items Spring 2017

15.

Solve.

Enter your answer in the box.

$53 \times 2,794 =$

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
56	5.NBT.5	5.NBT.B.5	Number & Operations in Base Ten	PARCC Released Items Spring 2017

33.

What is the value of $4,029 \times 26$?

Enter your answer in the box.

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
57	5.NF.4a-2	5.NF.B.4.A	Number & Operations - Fractions	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

34. Solve.

$$\frac{5}{6} \times \frac{9}{10} =$$

A. $\frac{14}{16}$

B. $\frac{15}{30}$

C. $\frac{45}{60}$

D. $\frac{50}{54}$

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
57	5.NF.4a-2	5.NF.B.4.A	Number & Operations - Fractions	PARCC Released Items Spring 2017

29.

What is the value of $\frac{1}{6} \times \frac{5}{8}$?

- A. $\frac{5}{14}$
- B. $\frac{6}{14}$
- C. $\frac{5}{48}$
- D. $\frac{6}{48}$

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
58	5.G.2	5.G.A.2	Geometry	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

Use the information provided to answer Part A and Part B for question 30.

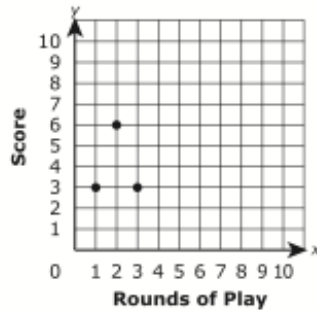
Mia is playing several rounds of a word game. Each coordinate pair shows the number of a round and Mia's score for that round. She is keeping track of these coordinate pairs on a coordinate plane.

- Round 1: (1, 3)
- Round 2: (2, 6)
- Round 3: (3, 3)

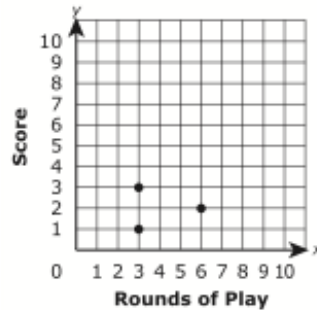
30. Part A

Which coordinate plane correctly shows Mia's scores for the first three rounds of play?

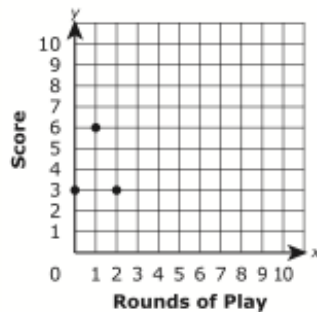
A.



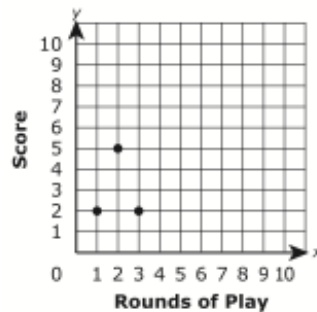
B.



C.



D.



Part B

In round 4, Mia scores the same number of points as in rounds 2 and 3 combined.

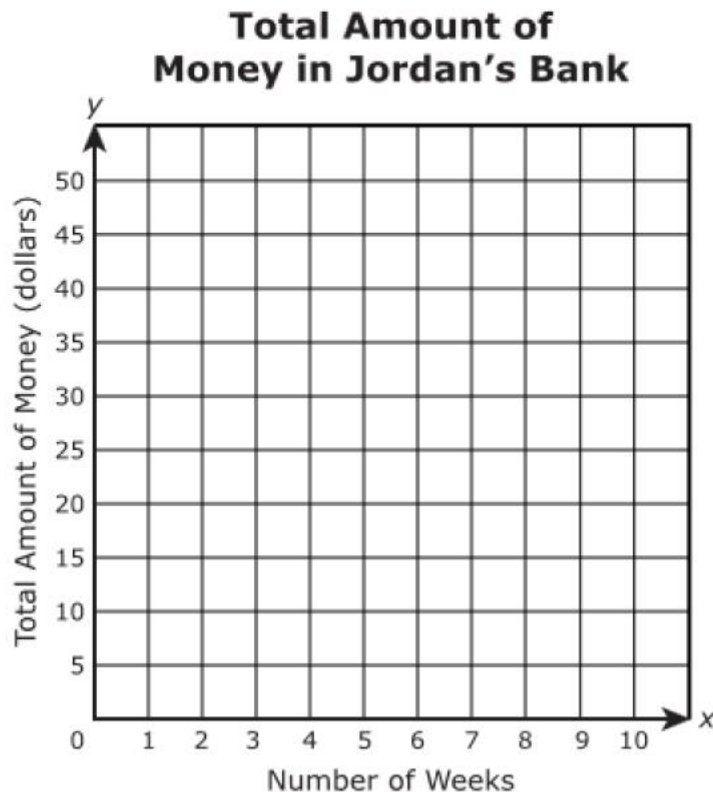
What is the coordinate pair that represents Mia's score for round 4?

- A. (4, 5)
- B. (9, 4)
- C. (5, 4)
- D. (4, 9)

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
58	5.G.2	5.G.A.2	Geometry	PARCC Released Items Spring 2017

25.

Jordan has \$10 in the bank. Jordan earns \$5 each week for doing chores, and puts the money in the bank. After a certain number of weeks of doing chores, Jordan has \$35. A graph is set up so that Jordan can record the total amount of money in the bank each week after putting in \$5.



Part A

Which ordered pair represents the amount of money Jordan has in the bank before doing any chores?

- A. (0, 10)
- B. (0, 35)
- C. (10, 0)
- D. (35, 0)

Continued on next page.

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
58	5.G.2	5.G.A.2	Geometry	PARCC Released Items Spring 2017

Part B

Which ordered pair represents the amount of money Jordan has after 4 weeks of doing chores?

- A. (4, 20)
- B. (4, 30)
- C. (20, 4)
- D. (30, 4)

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
59	5.NBT.7-1	5.NBT.B.7	Number & Operations in Base Ten	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

3. Enter your answer in the box.

$$5.63 + 14.37 =$$

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
59	5.NBT.7-1	5.NBT.B.7	Number & Operations in Base Ten	PARCC Released Items Spring 2017

2.

Solve.

Enter your answer in the box.

$5.05 + 4.95 = \input{type="text"/>$

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
60	5.NF.3-1	5.NF.B.3	Number & Operations - Fractions	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2017

20. Which expression is equal to $\frac{7}{8}$?

A. $8 - 7$

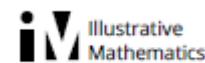
B. 7×8

C. $\frac{8}{7}$

D. $7 + 8$

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
61	5.OA.2-2	5.OA.A.2	Operations & Algebraic Thinking	Illustrative Mathematics

5.OA Comparing Products



Leo and Silvia are looking at the following problem:

How does the product of 60×225 compare to the product of 30×225 ?

Silvia says she can compare these products without multiplying the numbers out. Explain how she might do this. Draw pictures to illustrate your explanation.



5.OA Comparing Products
Typeset May 4, 2016 at 18:45:20. Licensed by Illustrative Mathematics under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License .

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
62	5.OA.1	5.OA.A.1	Number & Operations in Base Ten	MC ² PARCC Practice Test Item Packets-Preparing for Spring 2015

Enter your answer in the box.

$$3 \times (8 + 16) \div 4 = \input{text}$$

Difficulty Order	Evidence Statement	Common Core State Standard	Domain	Source
62	5.OA.1	5.OA.A.1	Number & Operations in Base Ten	PARCC Released Items Spring 2017

9.

Suzanne wrote the expression shown.

$$5 \times (12 - 6) \div 2$$

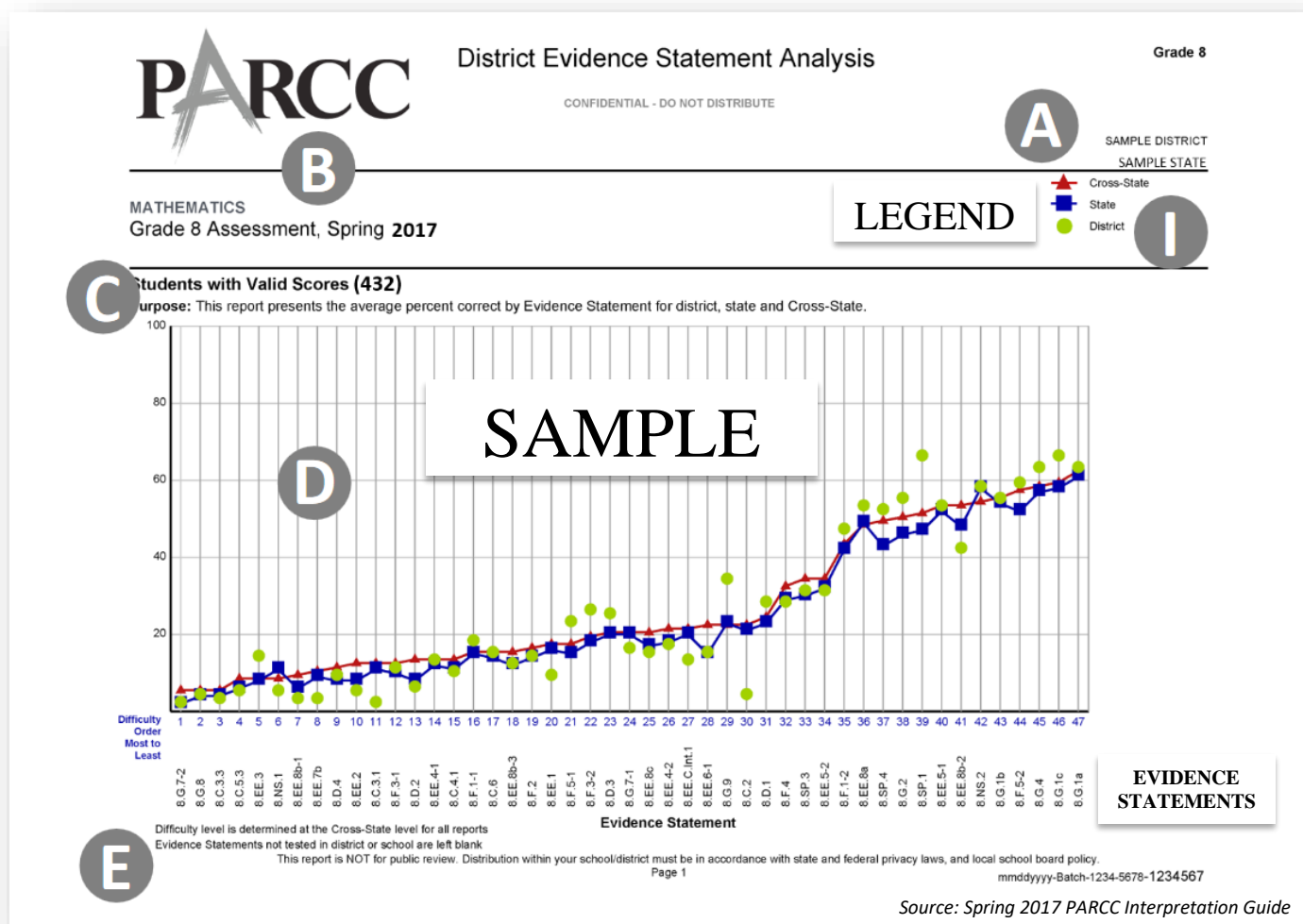
What is the value of the expression?

- A. 15
- B. 27
- C. 45
- D. 57

User's Guide

To support New Mexico educators in preparing students for the Spring 2018 PARCC Assessment, Mathematically Connected Communities (MC²) has again compiled *Practice Test Item Packets* posted on the MC² website. Each packet is **organized in order of difficulty (most to least)** based on the *Spring 2017 Evidence Statement Analysis* at the cross-state level used for all reports. Each grade-level/subject analysis contains a graph (see sample below) representing the following data:

- Average percent correct for each item represented by **cross-state** (aggregation of all states in PARCC consortium), **state**, **district**, and for the school report, at school level (see legend below)
- Evidence Statements are located along the bottom and left blank on the district/school report if not tested in that particular location (see below)



Each page contains **only one problem** and identifies the following for that item:

Difficulty Order

The practice test items are presented in order from most to least difficult based on the *Spring 2017 Evidence Statement Analysis* at the cross-state level used for all reports.

Since the harder problems are found at the beginning of the document, teachers may want to start with the easier items at the end.

Evidence Statements

Describe the knowledge and skills that the assessment item/task elicits from students and are derived from the Common Core State Standards for Mathematics (CCSS-M). Evidence Statements for grades 3 through 8 will begin with the grade number. High School Evidence Statements begin with “HS” or with the label for a conceptual category. Numbers at the end of *Integrated Evidence Statements* and those focused on *Reasoning* and *Modeling* are added for assessment clarification and tracking purposes. Evidence Statement documents are available at: <http://parcc-assessment.org/assessments/test-design/mathematics/math-test-specifications-documents>

An Evidence Statement might:

- 1. Use exact language as the CCSS-M.** For example, Evidence Statement 8.EE.1 uses the exact language as standard 8.EE.1 *Know and apply the properties of integer exponents to generate equivalent numerical expressions. For example, $32 \times 3^{-5} = 3^{-3} = 1/3^3 = 1/27$.*
- 2. Be derived by focusing on specific parts of a standard.** For example, CCSS-M 8.F.5 *Describe qualitatively the functional relationship between two quantities by analyzing a graph (e.g., where the function is increasing or decreasing, linear or nonlinear). Sketch a graph that exhibits the qualitative features of a function that has been described verbally* was split into the following two Evidence Statements:
 - 8.F.5-1 *Describe qualitatively the functional relationship between two quantities by analyzing a graph (e.g., where the function is increasing or decreasing, linear or nonlinear).*
 - 8.F.5-2 *Sketch a graph that exhibits qualitative features of a function that has been described verbally.*Together these two evidence statements are CCSS-M 8.F.5.
- 3. Be integrative (Int).** Integrative Evidence Statements allow for the testing of more than one of the Common Core Standards and can be integrated across all content within a grade/course, all standards in a high school conceptual category, all standards in a domain, or all standards in a cluster. For example:
 - **Grade/Course–4.Int.2** (Integrated across Grade 4)
 - **Conceptual Category–F.Int.1** (Integrated across the Functions Conceptual Category)
 - **Domain–4.NBT.Int.1** (Integrated across the Number and Operations in Base Ten Domain)
 - **Cluster–3.NF.A.Int.1** (Integrated across the Number and Operations–Fractions Domain, Cluster A)
- 4. Focus on mathematical reasoning.** A Reasoning Evidence Statement (keyed with C as per PARCC Claims Structure, see pg. 4) will state the type of reasoning that an item/task will require and content scope from the CCSS-M that the item/task will require students to reason about. Such as, Evidence Statement 3.C.2
 - Type of Reasoning: *Base explanations/reasoning on the relationship between addition and subtraction or the relationship between multiplication and division.*
 - Content Scope: Knowledge and skills are articulated in 3.OA.6When the focus is on reasoning, the Evidence Statement may also require the student to reason about *securely held knowledge* (SHK-see pg. 4) from a previous grade.
- 5. Focus on mathematical modeling.** A Modeling Evidence Statement (keyed with D as per PARCC Claims Structure, see pg. 4) will state the type of modeling that an item/task will require and the content scope from the CCSS-M that the item/task will require students to model about.

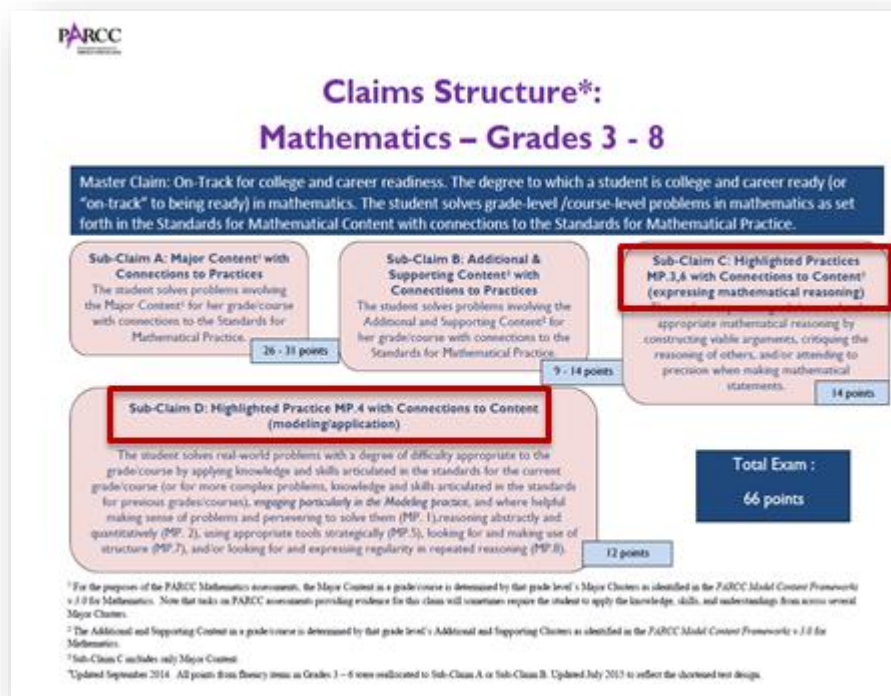
For example, Evidence Statement HS.D.5:

- Type of Modeling: Given an equation or system of equations, reason about the number or nature of the solutions.
- Content Scope: A-REI.11, involving any of the function types measured in the standards.

Evidence Statement 4.D.2 below is of an example in which an item/task aligned to the evidence statement will require the student to model *on grade level* (OGL), using *securely held knowledge* from a previous grade.

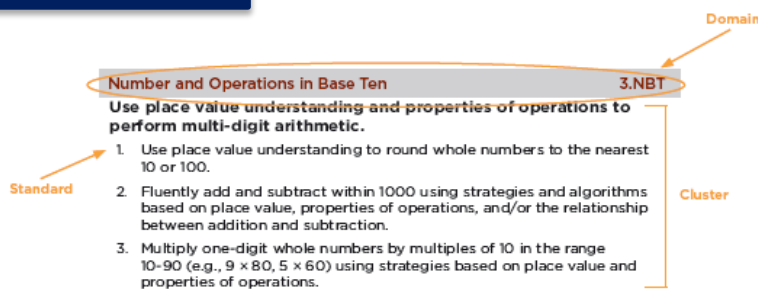
- Type of Modeling: Solve multi-step contextual problems with degree of difficulty appropriate to Gr. 4
- Securely Held Knowledge: requiring application of knowledge and skills articulated in 3.OA.A, 3.OA.8, 3.NBT, and/or 3.MD.

Sub-Claim C (expressing mathematical reasoning) and Sub-Claim D (modeling/application) in the PARCC Claims Structure are not explicitly found in the CCSS-M as domains but are sub-included in the Mathematical Practices.



Common Core State Standards

<http://www.corestandards.org/Math/>



An Evidence Statement focusing on Reasoning or Modeling will not indicate a specific standard in the Common Core column because these are not explicitly found in the CCSS-M as a domain. Instead it will indicate:

- **OGL-On Grade Level**
- **Securely Held Knowledge (SHK)**-Ability to flexibly apply what one already knows to a non-routine or complex problem. For example, modeling is a sophisticated practice. This means that modeling and other complex tasks will naturally draw upon securely held knowledge and skills. Some tasks may demand flexible application of content knowledge first gained in previous grades to solve complex problems. Examples of standards which refer to *securely held knowledge* begin with the words *Apply and Extend*.

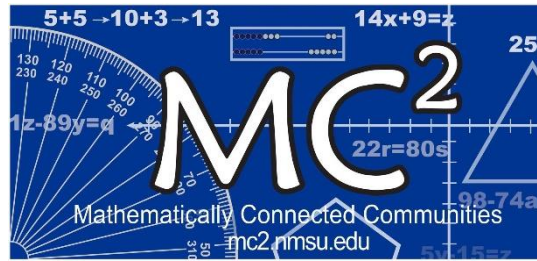
Domains

- Operations & Algebraic Thinking (OA)
- Number & Operations in Base Ten (NBT)
- Number & Operations-Fractions (NF)
- Measurement & Data (MD)
- Geometry (G)

Sources

Identifies where the practice test items were excerpted from (e.g., MC2 PARCC Practice Test Item Packets; Illustrative Mathematics)

For more information, email mc2@nmsu.edu



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