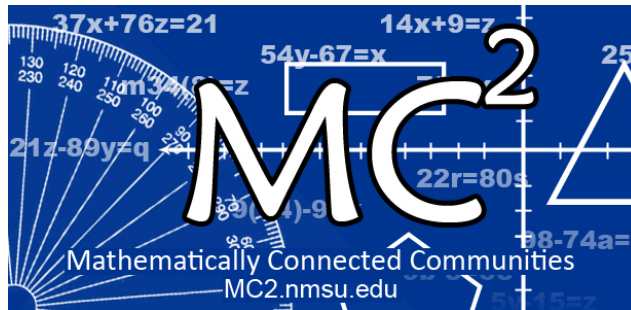


# Mathematically Connected Communities



## PARCC Practice Test Items 4<sup>th</sup> Grade Mathematics

Excerpted 11/2014 from  
PARCC Online Practice Tests  
[www.parcconline.org](http://www.parcconline.org)

## Mathematical Practice Questions for MC<sup>2</sup> Thinking Protocol

Follow the process below in working with the PARCC practice 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 MC<sup>2</sup> PARCC practice 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.

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### Thinking/Writing Prompts to Promote Mathematical Practices

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

1. What do I know about the problem?
2. What questions do I 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.

**4<sup>th</sup> Grade PARCC EOY Practice Assessment Item #1: Standard 4.MD.5**

Which statement about angles is true?

- A. An angle is formed by two rays that do not have the same endpoint.
- B. An angle that turns through  $\frac{1}{360}$  of a circle has a measure of 360 degrees.
- C. An angle that turns through five 1-degree angles has a measure of 5 degrees.
- D. An angle measure is equal to the total length of the two rays that form the angle.

4<sup>th</sup> Grade PARCC EOY Practice Assessment Item #2: Standard 4.OA.3-2

Four teachers offer an after-school chess club. The table shows the number of students who joined.

Grade	Number of Students
Third	12
Fourth	36
Fifth	9

**Part A**

The teachers will divide the total group of students who joined into teams of **no more than 6** students.

What is the **least** number of teams that will include all of the students?

Enter your answer in the box.

teams

**Part B**

The chess club started with 18 chess sets. The teachers ordered 3 cases of 15 chess sets. They will divide the total number of chess sets so that each teacher receives an equal number. Then they will give any extra sets to the school library.

What is the **greatest** number of chess sets each of the 4 teachers should get?

Enter your answer in the box.

chess sets

**4<sup>th</sup> Grade PARCC EOY Practice Assessment Item #4: Standard 4.Int.4**

A team runs a race. There are 4 people on the team, and each person runs the same distance. The team runs a total distance of 5,280 feet.

What is the distance that each person runs?

Enter your answer in the box.

 feet

**4<sup>th</sup> Grade PARCC EOY Practice Assessment Item #5: Standard 4.MD.1**

The length of a desktop is 4 feet. How many inches is the length of the desktop?

Enter your answer in the box.

 inches

4<sup>th</sup> Grade PARCC EOY Practice Assessment Item #6: Standard 4.NBT.6-1

Enter your answer in the box.

$522 \div 9 =$

**4<sup>th</sup> Grade PARCC EOY Practice Assessment Item #7: Standard 4.OA.3-2**

Hayley has 272 beads. She buys 38 more beads. She will use 89 beads to make bracelets and the rest to make necklaces. She will use 9 beads for each necklace.

What is the **greatest** number of necklaces Hayley can make?

Enter your answer in the box.

necklaces



#### 4<sup>th</sup> Grade PARCC EOY Practice Assessment Item #8: Standard 4.NF.3d

Each student in a class chose one sport to play. This table shows the fractions of all students who chose each sport.

Sport	Fraction of All Students
Soccer	$\frac{3}{10}$
Football	$\frac{2}{10}$
Hockey	$\frac{1}{10}$
Basketball	$\frac{4}{10}$

#### Part A

Drag and drop the fractions and operation symbols into the blanks to create an equation that can be used to find  $s$ , the fraction of all students that chose to play either soccer or basketball.

Drag and drop the answers into the correct order.

$\frac{1}{10}$   $\frac{2}{10}$   $\frac{3}{10}$   $\frac{4}{10}$  + -

× ÷

=  $s$

**4<sup>th</sup> Grade PARCC EOY Practice Assessment Item #9: Standard 4.Int.7**

The Amazon River is about 6,516 kilometers long.

The Mississippi River is about 3,775 kilometers long.

What is the difference, in kilometers, between these two lengths?

Enter your answer in the box.

kilometers

**4<sup>th</sup> Grade PARCC EOY Practice Assessment Item #10: Standard 4.NBT.4-1**

Enter your answer in the box.

$6,272 + 2,766 =$

**4<sup>th</sup> Grade PARCC EOY Practice Assessment Item #11: Standard 4.Int.2**

Mr. Kowolski ordered 35 boxes of granola bars. Each box contained 24 granola bars.  
What is the total number of granola bars Mr. Kowolski ordered?

Enter your answer in the box.

granola bars

**4<sup>th</sup> Grade PARCC EOY Practice Assessment Item #12: Standard 4.NBT.Int.1**

Enter your answer in the box.

$3,950 + 405 =$

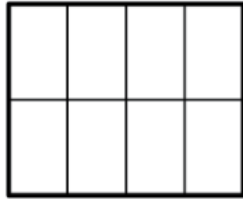
4<sup>th</sup> Grade PARCC EOY Practice Assessment Item #14: Standard 4.NBT.5-1

Enter your answer in the box.

$3,649 \times 6 =$

**4<sup>th</sup> Grade PARCC EOY Practice Assessment Item #15: Standard 4.NF.3a**

The rectangle is divided into eight equal sections.



Jodi colors 4 sections. Then she colors 3 more sections.

Which **two** of these represent the fraction of the rectangle that Jodi colors in all? Select the **two** correct answers.

- A.  $\frac{4}{8} + \frac{3}{8}$
- B.  $4 + 3$
- C.  $\frac{8}{4} + \frac{8}{3}$
- D.  $\frac{1}{8} + 3$
- E.  $\frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8}$

**4<sup>th</sup> Grade PARCC EOY Practice Assessment Item #16: Standard 4.OA.2**

Mr. Soto's bicycle weighs 30 pounds. Mr. Soto's car weighs 90 times as much as his bicycle. What is the weight, in pounds, of Mr. Soto's car?



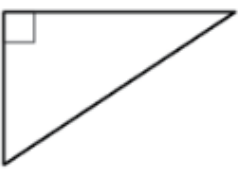
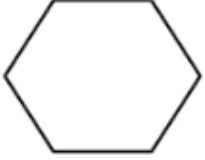

Enter your answer in the box.

pounds



**4<sup>th</sup> Grade PARCC EOY Practice Assessment Item #18: Standard 4.G.2**

For each figure pictured in the table, select the box for any statement that describes the figure. You may select more than one box for each figure.

	Appears to have at least 2 parallel sides	Has at least 2 perpendicular sides
	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>

4<sup>th</sup> Grade PARCC EOY Practice Assessment Item #19: Standard 4.NBT.4-2

Enter your answer in the box.

$5,314 - 4,983 =$

**4<sup>th</sup> Grade PARCC EOY Practice Assessment Item #21: Standard 4.OA.3-1**

A garden contains only bean plants and tomato plants. There are 5 rows of bean plants and 6 rows of tomato plants. Each row of bean plants has 13 plants. Each row of tomato plants has 16 plants.

What is the total number of plants in the garden?

Enter your answer in the box.

 plants

**4<sup>th</sup> Grade PARCC EOY Practice Assessment Item #22: Standard 4.Int.8**

The table shows the number of computers sold at a store in three different months.

Month	Number of Computers
January	6,521
February	2,374
March	2,498

**Part A**

What is the total number of computers sold at the store in the three months?

Enter your answer in the box.

 computers

**Part B**

How many **more** computers were sold at the store in January than in both February and March combined?

Enter your answer in the box.

 computers

**4<sup>th</sup> Grade PARCC EOY Practice Assessment Item #23:Standard 4.OA.4-1**

Select the **three** choices that are factor pairs for the number 28.

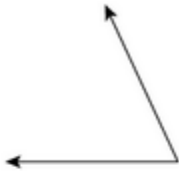
- A. 1 and 28
- B. 2 and 14
- C. 3 and 9
- D. 4 and 7
- E. 6 and 5
- F. 8 and 3

4<sup>th</sup> Grade PARCC EOY Practice Assessment Item #26: Standard 4.MD.6

Which angle has a measure of  $65^\circ$ ?

You can use the protractor to help you find the answer.

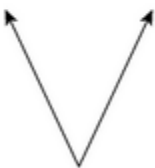
A.



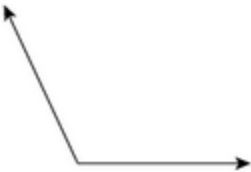
B.



C.



D.



4<sup>th</sup> Grade PARCC EOY Practice Assessment Item #27: Standard 4.NF.1-2

Enter your answer in the box.

$$\frac{9}{10} = \frac{\boxed{\phantom{00}}}{100}$$

**4<sup>th</sup> Grade PARCC EOY Practice Assessment Item #28: Standard 4.OA.1-2**

Which **two** equations represent the statement "48 is 6 times as many as 8"?

Select the **two** correct answers.

A.  $48 = 6 + 8$

B.  $48 = 6 \times 8$

C.  $48 = 6 \times 6$

D.  $48 = 8 + 6$

E.  $48 = 8 \times 6$



4<sup>th</sup> Grade PARCC EOY Practice Assessment Item #30: Standard 4.NF.4b-1

Which expression is equivalent to  $6 \times \frac{2}{3}$ ?

- A.  $12 \times \frac{1}{2}$
- B.  $12 \times \frac{1}{3}$
- C.  $6 \times \frac{1}{3}$
- D.  $3 \times \frac{2}{3}$

4<sup>th</sup> Grade PARCC EOY Practice Assessment Item #32: Standard 4.OA.4-3

Drag and drop each number that is a multiple of 8 into the box.

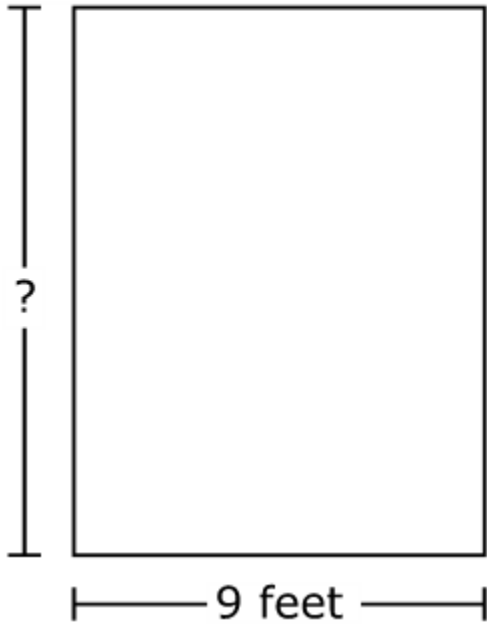
1 2 4 8 20 36 58 24 80 64

Multiples of 8

**4<sup>th</sup> Grade PARCC EOY Practice Assessment Item #33: Standard 4.MD.3**

The area of the rectangular sandbox at Dave's school is 108-square feet.

The sandbox has a width of 9 feet as shown in the diagram.



What is the length of the sandbox?

Enter your answer in the box.

 feet

**4<sup>th</sup> Grade PARCC EOY Practice Assessment Item #34: Standard 4.NF.A.Int.1**

Rachana has a set of 10 mugs. The set is made up of three different kinds of mugs.

- $\frac{1}{2}$  of the mugs have pictures on them.
- $\frac{2}{5}$  of the mugs have words on them.
- $\frac{1}{10}$  of the mugs have flowers on them.

**Part A**

Place the fractions in order, from least to greatest.

Least	<input type="text"/>
	<input type="text"/>
Greatest	<input type="text"/>

4<sup>th</sup> Grade PARCC EOY Practice Assessment Item #35: Standard 4.NBT.4-1

Enter your answer in the box.

$7,564 + 8,239 =$

4<sup>th</sup> Grade PARCC EOY Practice Assessment Item #36: Standard 4.NBT.4-2

Enter your answer in the box.

$9,751 - 2,489 =$