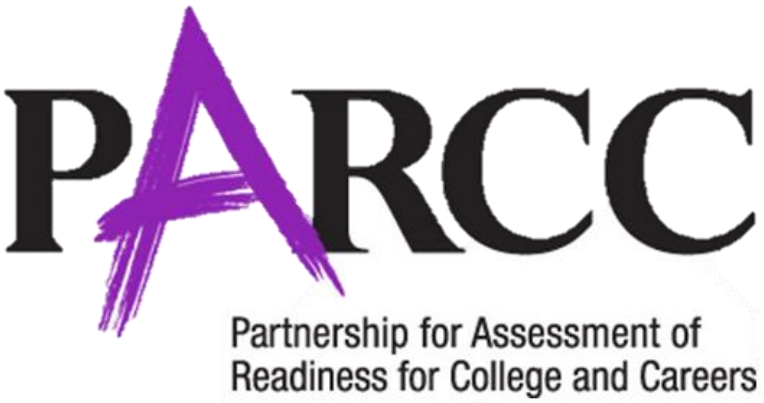


Math

Spring 2017

Grade 5

Released Items

1. M01763

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. $\frac{84}{96}, \frac{40}{96}$

2. VF888550

Solve.

Enter your answer in the box.

$5.05 + 4.95 =$ ☐

3. M00211P

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.

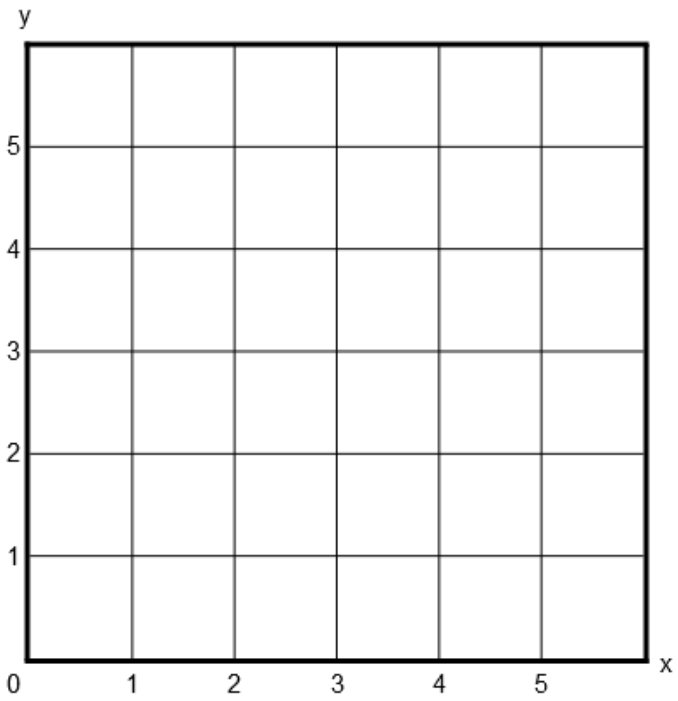
4. VF543100

Coordinates for points are shown in the table.

Point	Coordinate
A	(2 ,5)
B	(1, 4)
C	(0, 3)
D	(1, 0)

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

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



5. VF823185

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.

6. VF884508

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.

$\frac{\square}{\square}$

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

+ − × ÷ (·) [·] = < > ≠ $ ° ?

7. VH016635

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. $25 < \frac{2}{3} \times 25$

8. VF559672

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.

9. M01122

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

10. VF950273

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.

$\square$

$\square$

Part B

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

Enter your answer as a fraction in the boxes.

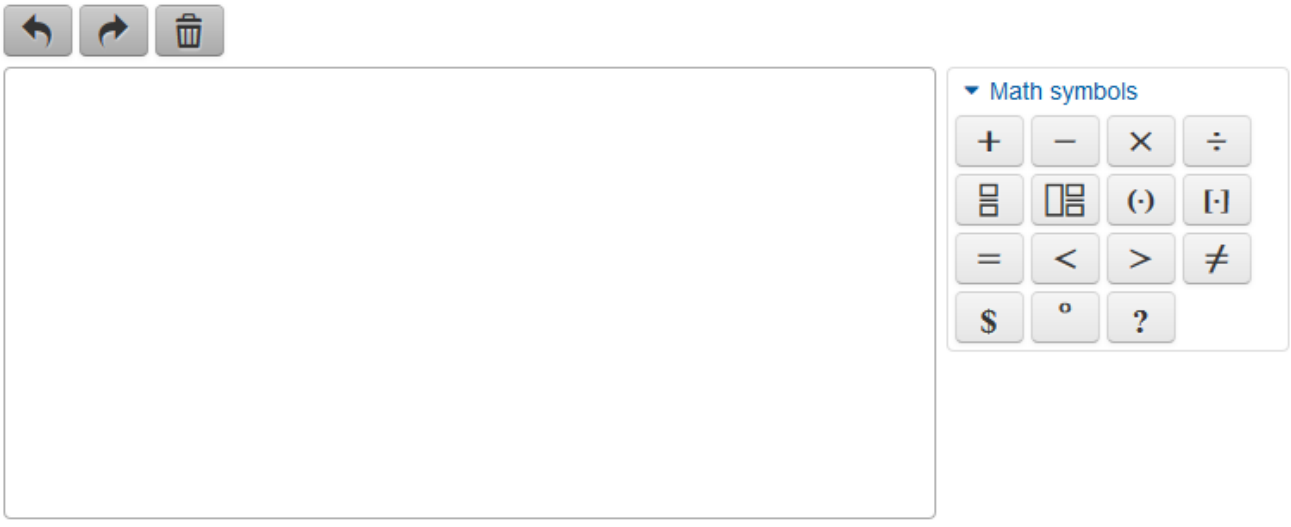
$\square$

$\square$

11. M02295

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.



12. VH059897

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. $4 \times 4 \times 4 \times 4 \times 4 \times 4 \times 4 \times 4 \times 4 \times 4$

13. VH029438

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

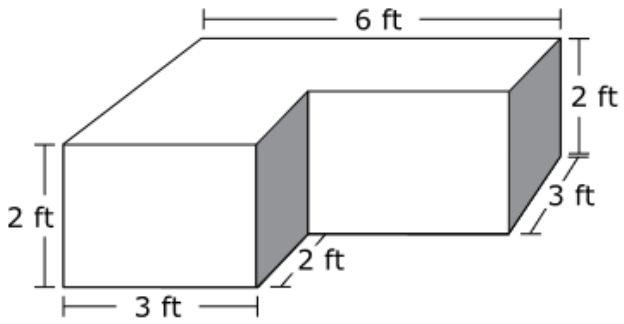
Day	Distance (miles)
Sunday	$2\frac{1}{2}$
Monday	$1\frac{5}{6}$
Tuesday	$\frac{5}{8}$
Wednesday	$1\frac{2}{3}$

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

14. VF643179

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.

15. VH002441

Solve.

Enter your answer in the box.

$53 \times 2{,}794 =$

16. VF536806

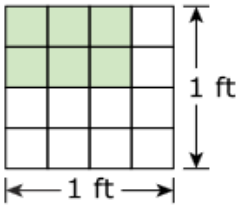
A 28-inch ribbon is cut into 8 pieces that are all the same length. What is the length of each piece?

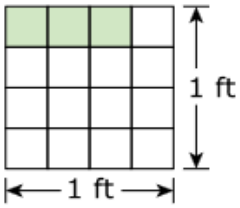
- A. $3\frac{1}{8}$ inches
- B. $3\frac{1}{2}$ inches
- C. $4\frac{1}{7}$ inches
- D. $4\frac{1}{2}$ inches

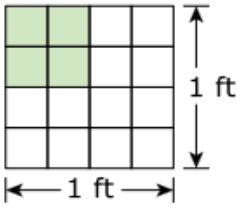
17. M01269

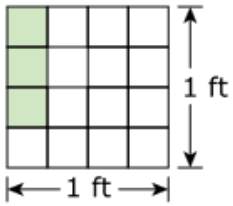
Ella has a rectangle that has a side with a length of $\frac{1}{4}$ foot and a side with a length of $\frac{3}{4}$ foot. She shaded a model to show that the area of her rectangle is $\frac{3}{16}$ square foot. Select each model that represents Ella's rectangle.

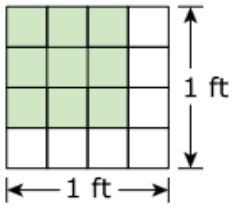
Select the **two** correct answers.

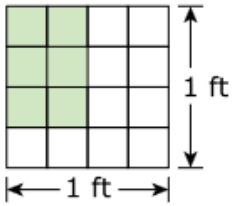
- A. 

- B. 

- C. 

- D. 

- E. 

- F. 

18. VF653842

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.

$\square$

$\frac{\square}{\square}$

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.

$\square$ and $\square$

19. M01017P

Which expression shows 293.64 in expanded form?

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

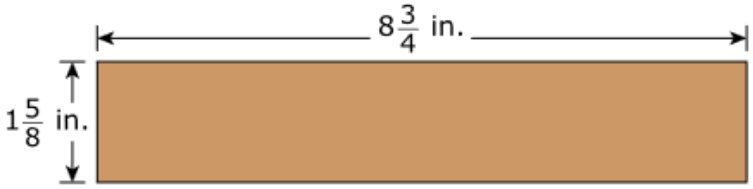
B. $2 \times 100 + 9 \times 10 + 3 \times 1 + 6 \times \frac{1}{10} + 4 \times \frac{1}{100}$

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

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

20. M03325

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

+ − × ÷

= < > ≠

$ ° ?

21. VF653812

Solve these equations.

Part A

Enter your answers in the boxes.

$200 \times 10 =$ ☐

$200 \times 100 =$ ☐

$200 \times 1{,}000 =$ ☐

Part B

Enter your answers in the boxes.

$200 \times 0.1 =$ ☐

$200 \times 0.01 =$ ☐

$200 \times 0.001 =$ ☐

22. VF885945

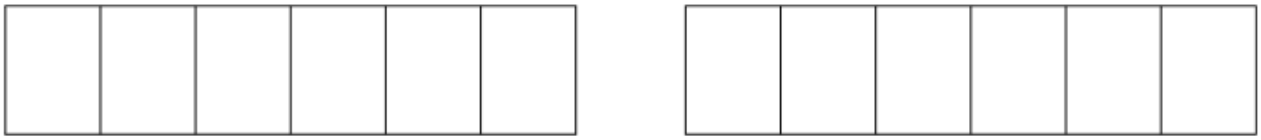
Solve.

Enter your answer as a fraction in the boxes.

$\frac{1}{4} + \frac{1}{5} + \frac{1}{6} =$ ☐/☐

23. M03445

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

24. M00173P

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. $\frac{1}{4}$

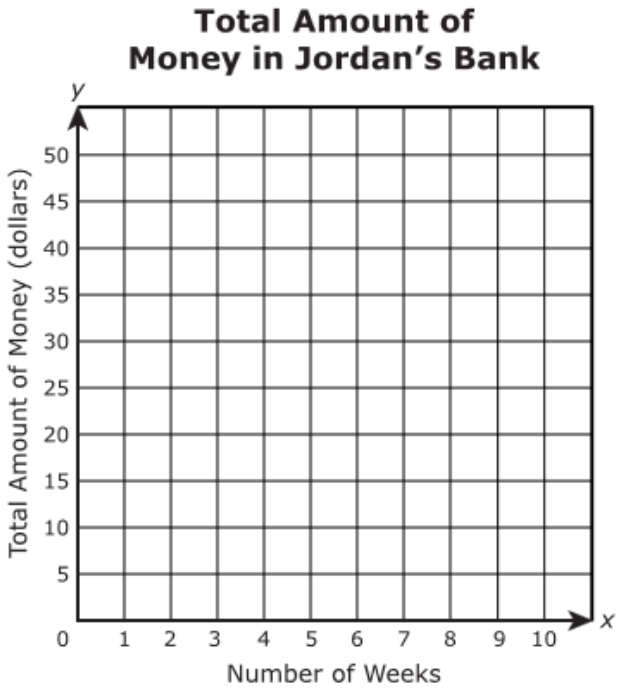
B. $\frac{1}{16}$

C. 4

D. 16

25. 4504-M05016P

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. $(35, 0)$

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. $(30, 4)$

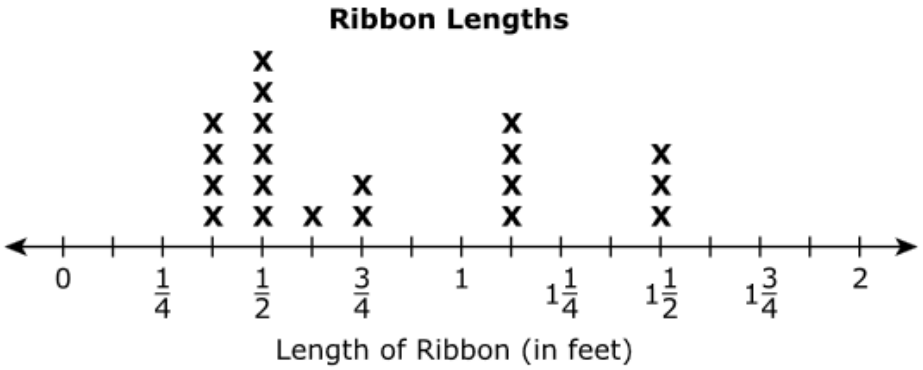
26. M01295

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

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

27. VF645543

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.

[ ]

[ ]

28.

0542-M02399

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

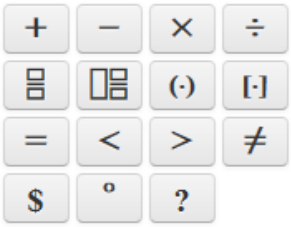
Part A

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



Part B

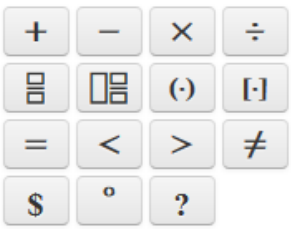
Lila got a difference of $2\frac{4}{8}$. She found the difference by using the following steps:

$$4\frac{3}{8} = \frac{8}{8} + \frac{8}{8} + \frac{8}{8} + \frac{8}{8} - \frac{3}{8} = \frac{29}{8}$$
$$2\frac{7}{8} = \frac{8}{8} + \frac{8}{8} - \frac{7}{8} = \frac{9}{8}$$
$$\frac{29}{8} - \frac{9}{8} = \frac{20}{8} = 2\frac{4}{8}$$

- 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



29. M01266

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

A. $\frac{5}{14}$

B. $\frac{6}{14}$

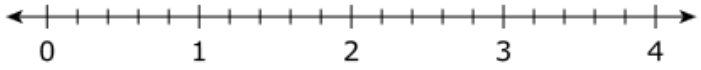
C. $\frac{5}{48}$

D. $\frac{6}{48}$

30. 4107-M03480

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

Part B

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

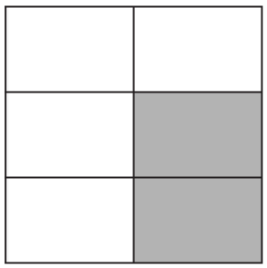
Enter your explanation in the space provided.

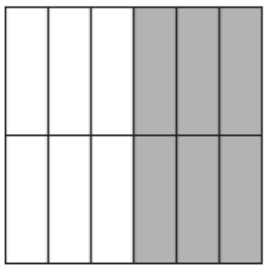
Math symbols

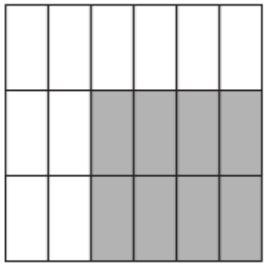
31.

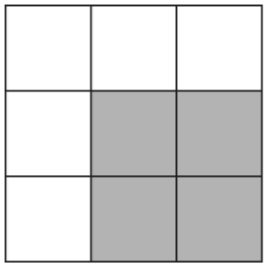
M01766

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

A. 

B. 

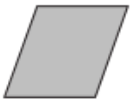
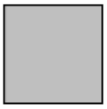
C. 

D. 

32. M00164P

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

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

- ☐ A. 
- ☐ B. 
- ☐ C. 
- ☐ D. 
- ☐ E. 
- ☐ F. 

33. M02096

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

Enter your answer in the box.

34. VF651544

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.