

Math  
Spring Operational 2015

Grade 3  
Performance Based Assessment  
Released Items

1. A teacher bought 8 packages of pencils. There were 10 pencils in each package. What is the total number of pencils the teacher bought?

Enter your answer in the box.

pencils

2. The number sentences are related facts.

$$5 \times 3 = ?$$

$$? \div 3 = 5$$

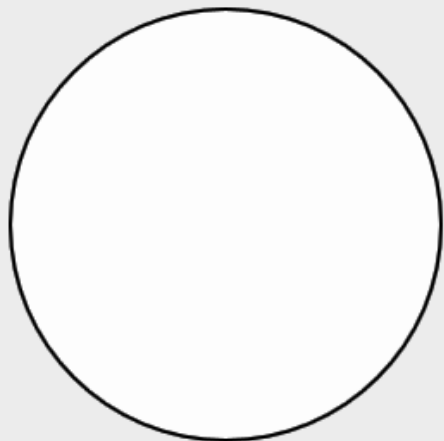
What is the missing number?

- A. 2
- B. 8
- C. 15
- D. 20

3. Use the circle to show  $\frac{5}{8}$ .

Divide the figure into the correct number of equal parts by using the More and Fewer buttons. Then shade by selecting the part or parts of the circle to shade  $\frac{5}{8}$  of the circle.

Circle



Fewer   More   Reset

The image shows a digital interface for a fraction model. At the top, the word "Circle" is centered. Below it is a large, empty circle. At the bottom of the interface, there are three buttons: "Fewer", "More", and "Reset".

4. Select the **three** choices that are equivalent to  $\frac{6}{6}$ .

A. 1

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

C. 3

D.  $\frac{3}{3}$

E.  $\frac{3}{1}$

F. 6

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5. Olga started her homework at 2:37 p.m. and finished it at 3:01 p.m. How long did it take Olga to do her homework?

Enter your answer in the box.

minutes

6. A baker has 48 cupcakes to deliver. The baker puts 6 cupcakes in each box.

Which equations represent the number of boxes the baker needs to deliver all 48 cupcakes?

Select the **three** correct answers.

A.  $48 \div \square = 6$

B.  $48 \times 6 = \square$


C.  $6 \times \square = 48$

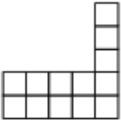
D.  $48 \div 6 = \square$


E.  $6 + \square = 48$


F.  $6 + 48 = \square$

7. Which figure shows an area of 24 square yards?

A.   
□ = 1 square yard

B.   
□ = 1 square yard

C.   
□ = 1 square yard

D.   
□ = 1 square yard

8. Select the **two** stories that can describe the expression  $6 \times 3$ .
- A. Kate collects baseball cards. Each page in her collection holds 18 baseball cards. She has 6 pages in her collection. How many baseball cards does she have in her collection?
  - B. Joe has 3 boxes of model airplanes. Each box holds 6 model airplanes. How many model airplanes does Joe have in the 3 boxes?
  - C. Brad will cook breakfast, lunch, and dinner for his family for 9 days. How many meals will he cook?
  - D. Peggy is the line leader for her class this week on Monday, Tuesday, and Wednesday. She will lead her class line 6 times on each day. How many times in all will Peggy lead her class line on Monday, Tuesday, and Wednesday?
  - E. Carrie, Gina, and Tom each have 18 pennies. How many pennies do these 3 have in all?

9. Rick keeps his trading cards in a box. Rick's uncle gave him 6 packs of 8 trading cards to add to his box.

Rick found that 29 of the trading cards from his uncle were different than any of the cards he already had in his box. The rest of the trading cards from his uncle were the same as those he already had.

**Part A**

How many of the trading cards from his uncle were the same as those Rick already had in his box?

Enter your answer in the box.

**Part B**

Rick's uncle also gave him a book to hold the trading cards. To fill 1 page of the book completely, 10 trading cards must be placed on the page.

Rick will place the 61 trading cards he already had and the 29 new trading cards in the book. What is the total number of pages Rick will fill completely in the book?

Enter your answer in the box.



10. Tom and Ann collect toy cars. Tom has 39 more toy cars than Ann. Ann has 38 blue cars and 58 red cars.

**Part A**

How many toy cars does Tom have?

Enter your answer in the box.

**Part B**

Ann gives Tom 18 toy cars from her collection. How many toy cars does Ann have now?

Enter your answer in the box.

11. **Part A**

Fred has 36 stuffed animals that he will give to 9 different friends. He will give an equal number of stuffed animals to each friend. Fred uses the equation  $36 \div 9 = ?$  to find how many stuffed animals he will give to each friend.

He thinks the ? equals 3. Explain why he is wrong.

Enter your explanation in the space provided.



▼ Math symbols

|                           |                   |     |     |
|---------------------------|-------------------|-----|-----|
| +                         | -                 | ×   | ÷   |
| $\frac{\square}{\square}$ | $\square \square$ | ( ) | [ ] |
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**Part B**

Find the correct answer using Fred's equation.

Enter your answer in the space provided.



▼ Math symbols

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**Part C**

How would you use multiplication to find the number of stuffed animals Fred gives each friend?

Enter your answer in the space provided.

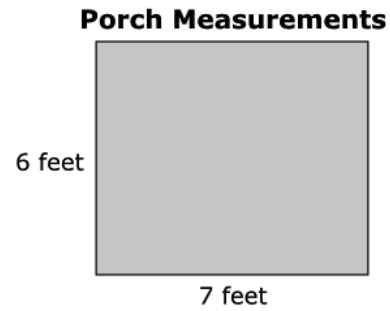


▼ Math symbols

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12. **Part A**

The length and width of the rectangular porch Jacob built are shown.



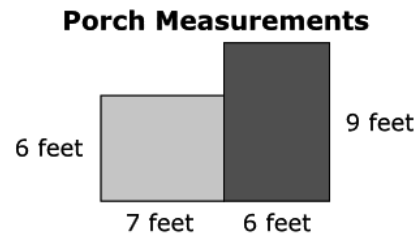
What is the area of the porch?

Enter your answer in the box.

square feet

**Part B**

Jacob adds another part to the porch.



What is the area, in square feet, of both parts of the porch all together? Show all your work or explain how you figured out the total area of the porch.

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

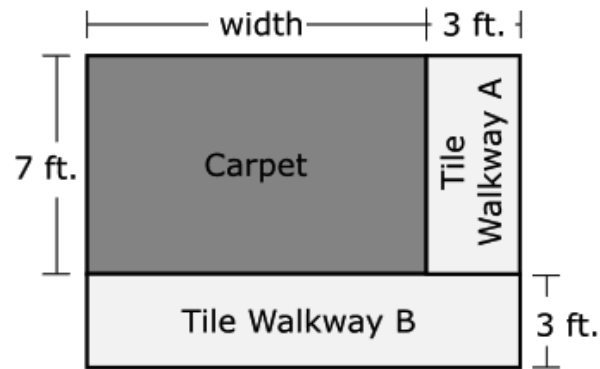


▼ Math symbols

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13. The carpet in the Hawkins' living room has a length of 7 feet. The width is 2 feet more than the length. The family wants to put tile walkways on two sides of the carpet, with lengths and widths as shown.

### Carpet and Walkways



- What is the area of the carpet? Show your work.
- What is the area of **each** of the tile walkways? Show your work.
- What is the total area of the carpet and the tile walkways? Show your work.

Enter your answers and your work in the space provided.



▼ Math symbols

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14. Jeanie has different colored buttons as shown. She wants to determine the total number of buttons she has altogether.

- 20 blue
- 19 orange
- 31 red
- 28 yellow

### Part A

Jeanie explains there are a total of 818 buttons because  $0 + 9 + 1 + 8 = 18$  in the ones place, so she writes down 18. Then  $2 + 1 + 3 + 2 = 8$  in the tens place, so she writes down 8 in front of the 18.

Explain why Jeanie's reasoning is incorrect. Find the total number of buttons she has altogether.

Enter your answer and your explanation in the space provided.



▼ Math symbols

|                           |                   |     |     |
|---------------------------|-------------------|-----|-----|
| +                         | -                 | ×   | ÷   |
| $\frac{\square}{\square}$ | $\square \square$ | (.) | [ ] |
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### Part B

Jeanie explains there are 28 more red buttons than orange buttons because the smaller number is always subtracted from the larger number. So she got  $9 - 1 = 8$  in the ones place and  $3 - 1 = 2$  in the tens place.

Explain why Jeanie's reasoning is incorrect. Find how many more red buttons than orange buttons she has.

Enter your answer and your explanation in the space provided.



▼ Math symbols

|                           |                   |     |     |
|---------------------------|-------------------|-----|-----|
| +                         | -                 | ×   | ÷   |
| $\frac{\square}{\square}$ | $\square \square$ | (.) | [ ] |
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| \$                        | °                 | ?   |     |

15. Mr. Haley bought a total of 36 pictures. The pictures are only sold in packages. Each package came with 4 small pictures, 3 medium pictures, and 2 large pictures.

How many pictures were in each package? Show your work.

How many packages did he buy? Show your work.

Enter your answers and your work in the space provided.



▼ Math symbols

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16. The Lions and Bulldogs played a basketball game. The scoreboard is shown.

### Scoreboard

|          | 1st Half | 2nd Half | Score |
|----------|----------|----------|-------|
| Lions    | 28       | 35       |       |
| Bulldogs | 32       | 29       |       |

#### Part A

How many total points did the Lions score?

- A. 51  
 B. 53  
 C. 61  
 D. 63

#### Part B

How many total points did the Bulldogs score?

- A. 51  
 B. 53  
 C. 61  
 D. 63

#### Part C

When the first half ended, how many more points did the Bulldogs have than the Lions?

Enter your answer in the box.

#### Part D

The top two scorers for the Lions scored 25 points and 12 points.

How many points did the rest of the team score?

Show the steps you used to solve the problem.

Enter your answer and your work in the space provided.



▼ Math symbols

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

17. Andre visits the library. It takes Andre 26 minutes to walk from his house to the library. He stays at the library 45 minutes. His mother drives him home, which takes 15 minutes. How many more minutes does Andre spend at the library than traveling to and from the library?

Show all the steps for solving the problem. Explain each step and give the final answer.

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



▼ Math symbols

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