PARCC

Partnership for Assessment of
Readiness for College and Careers

Math
Spring Operational 2015
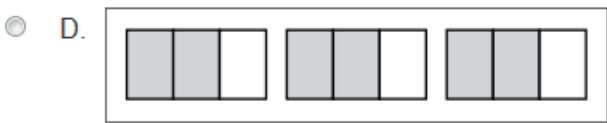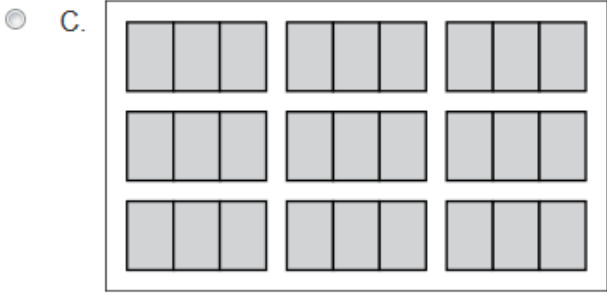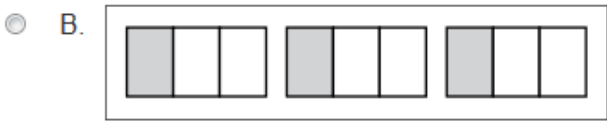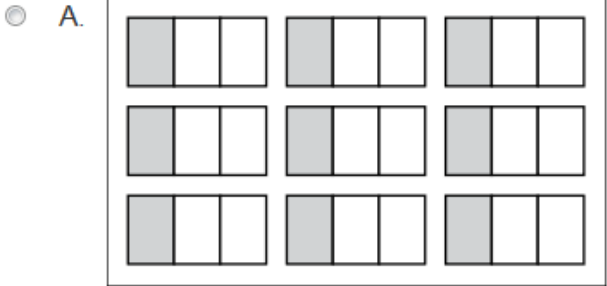
Grade 5
End of Year Released Items

1. Solve.

   Enter your answer in the box.

   $826 \times 3{,}569 =$ ▢

2. This model is shaded to show one whole.

   Which set is shaded to represent the solution to $\frac{1}{3} \times 9$?

   ○ A.

   ○ B.

   ○ C.

   ○ D.

3. Multiply.

$$2{,}639$$
$$\times \ \ 29$$

Enter your answer in the box.

[ ]

4. Stella mixed $\frac{1}{2}$ gallon of blue paint with $\frac{3}{16}$ gallon of white paint.

Show whether each fraction is a reasonable estimate or not a reasonable estimate of the total amount of paint after Stella mixed the two colors.

Select four correct boxes in the table.

	$\frac{5}{8}$	$\frac{2}{9}$	$\frac{11}{10}$	$\frac{3}{14}$
Reasonable Estimate	○	○	○	○
Not a Reasonable Estimate	○	○	○	○

5. Find the sum of 0.48 and 0.6. You may use the models shown to help find the sum.
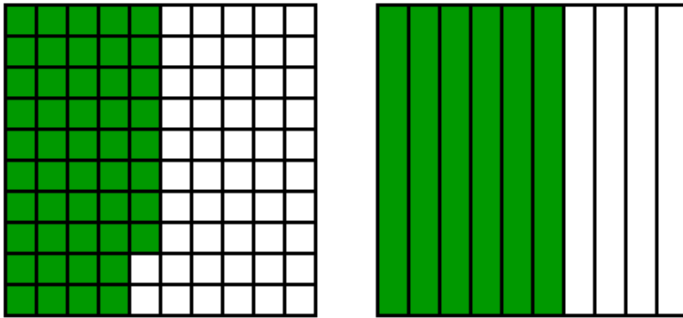
◎ A. 0.42

◎ B. 0.54

◎ C. 1.08

◎ D. 1.80

6. Order the following expressions from least value to greatest value.

Drag and drop the expressions into the correct order.

$19 \times \frac{3}{3}$	$19 \times \frac{1}{2}$	$19 \times \frac{3}{2}$	$19 \times \frac{2}{3}$

Least   Greatest

7. Which equation shows how to use equivalent fractions to evaluate $\frac{7}{6} - \frac{4}{5}$?

  ○ A. $\frac{7}{6} - \frac{4}{5} = \frac{7}{11} - \frac{4}{11}$

  ○ B. $\frac{7}{6} - \frac{4}{5} = \frac{35}{11} - \frac{24}{11}$

  ○ C. $\frac{7}{6} - \frac{4}{5} = \frac{7}{30} - \frac{4}{30}$

  ○ D. $\frac{7}{6} - \frac{4}{5} = \frac{35}{30} - \frac{24}{30}$

8. Mr. Diaz bought a board that was 12 feet long. He cut the entire board into pieces that were each $\frac{1}{3}$ foot long. How many pieces did Mr. Diaz have?
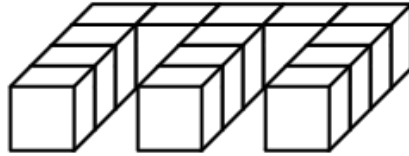
  ○ A. 18

  ○ B. 24

  ○ C. 36

  ○ D. 48

9. What exponent will make this equation true?

Enter your answer in the box.

$10^? = 1,000$

☐

10. In this figure each cube is the same size, 1 cubic unit, and all cubes are shown.

What is the volume of this figure?

Enter your answer in the box.

cubic units

11. Mrs. Bell wrote the expanded form of a number, as shown.

$$5 \times 100 + 4 \times 10 + 6 \times 1 + 2 \times \left(\frac{1}{10}\right) + 8 \times \left(\frac{1}{1000}\right)$$

What is the number written in standard form?

Enter your answer in the box.

12. Each ticket for a concert cost $14. The total amount of ticket sales for the concert was $8,792. How many tickets were sold?

   ○ A. 556

   ○ B. 628

   ○ C. 793

   ○ D. 858

13. What is the value of $4.05 \div 1.5$?

   Enter your answer in the box.

   [   ]

14. Select the correct numbers and symbol to create an expression that is equivalent to $\frac{5}{6}$.

   Select from the drop-down menus to correctly create the expression.

Choose.. ▾	Choose.. ▾	Choose.. ▾
1	+	1
5	−	5
6	X	6
11	÷	11

15. Jennifer pours $\frac{1}{2}$ quart of milk equally into 4 glasses. How much milk, in quarts, does Jennifer pour into each glass?

Enter your answer as a fraction in the boxes.

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┌─────────┐
│         │
└─────────┘
─────────
┌─────────┐
│         │
└─────────┘
```

16. Claire walked $2\frac{2}{5}$ miles. Jason walked $\frac{2}{3}$ as far as Claire. How many miles did Jason walk?

Enter your answer in the space provided. Enter **only** your answer.

☐ miles

| + | − | × | ÷ | ▤ | ▥ |
| = | < | > | (·) | [·] | $ |

17. What is the value of the expression $3,051 \times 882$?

○ A. 54,918

○ B. 274,590

○ C. 2,646,882

○ D. 2,690,982

18. Stan's lawn mower had $\frac{1}{8}$ of a gallon of gasoline in the tank. Stan started mowing and used all of the gasoline. He put $\frac{6}{10}$ of a gallon of gasoline in the tank. After he mowed, $\frac{1}{4}$ of a gallon was left in the tank. What was the total amount of gasoline Stan used?

○ A. $\frac{14}{40}$ gallon

○ B. $\frac{19}{40}$ gallon

○ C. $\frac{34}{40}$ gallon

○ D. $\frac{39}{40}$ gallon
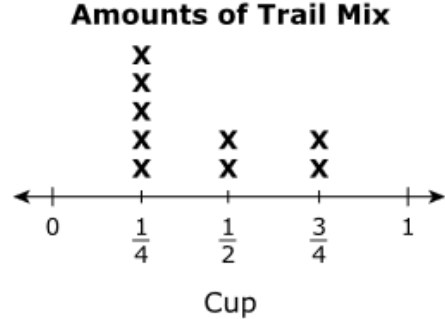
19. A rectangular prism is shown.
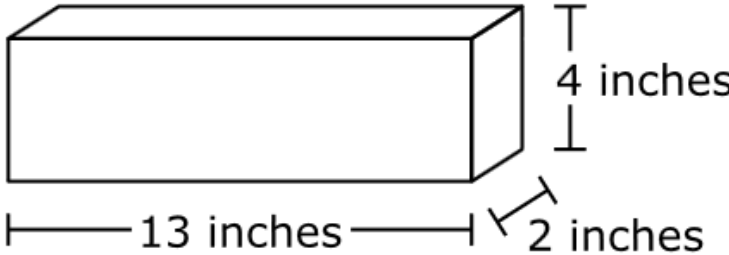
What is the volume of this rectangular prism?

Enter your answer in the box.

[   ] cubic inches

20. Elijah ate trail mix nine different times. Each X on the line plot represents an amount that he ate.
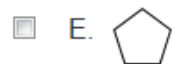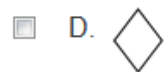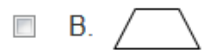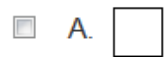
Amounts of Trail Mix

Cup

How much total trail mix, in cups, did Elijah eat?

○ A. $\frac{9}{2}$

○ B. $\frac{15}{2}$

○ C. $\frac{9}{4}$

○ D. $\frac{15}{4}$

21. Which of the figures are quadrilaterals but **not** rhombi?

Select the **three** correct figures.

☐ A.

☐ B.

☐ C.

☐ D.

☐ E.

☐ F.

22. Two rules for creating number patterns are given below. Each rule begins with a number called the *input* and creates a number called the *output*.

Rule 1

Multiply the input by 2. Then add 3 to the result to get the output.

Rule 2

Multiply the input by 3. Then add 1 to the result to get the output.

Which input and output table works for **both** rules?

A.

Input	Output
2	7

B.

Input	Output
3	10

C.

Input	Output
4	11

D.

Input	Output
5	13

23. Drag and drop a phrase to correctly complete the sentence.

equal to	4 times as large as	4 times as small as	2,000 times larger than

The value of the expression $4 \times (8,721 - 6,721)$ is [_____] the value of the expression $8,721 - 6,721$.

24. Plot point *A* at (4, 3), point *B* at (7, 5), and point *C* at (3, 1).

Select the places on the coordinate plane to plot the points.
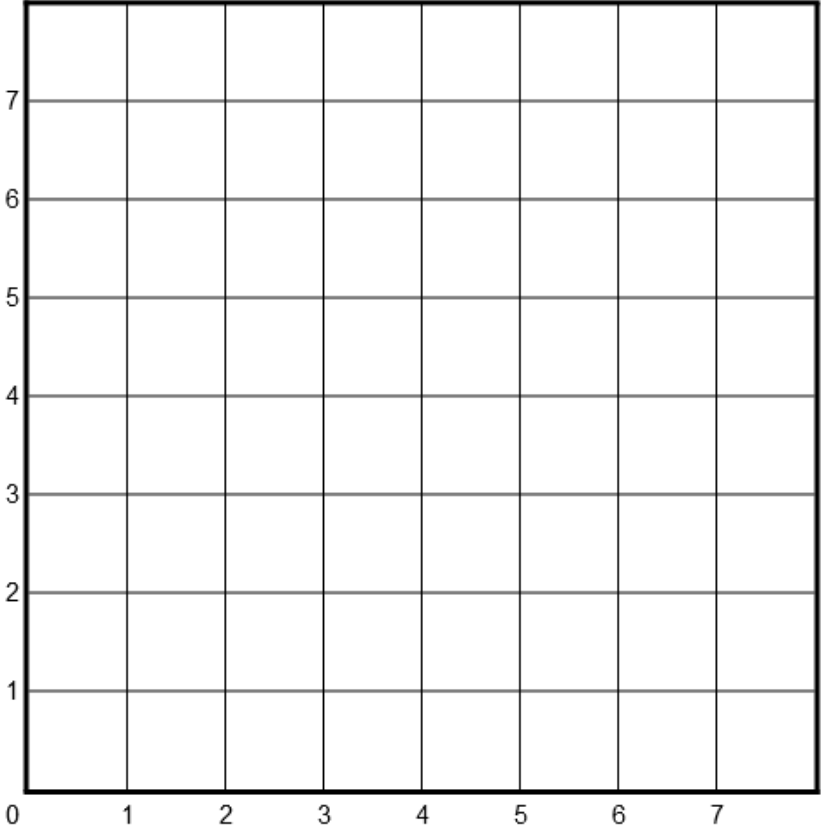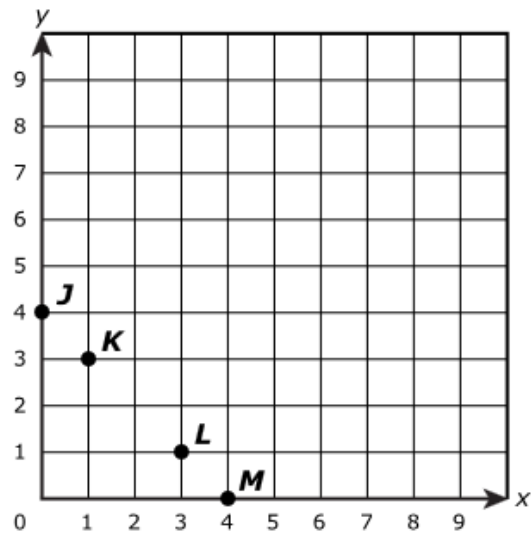
25. What is the value of this expression?

$$100 - [5 \times (3 + 4)]$$

Enter your answer in the box.

26. Which point on the graph has coordinates of $(1, 3)$?

- A. point J

- B. point K

- C. point L

- D. point M

27. One student drew a square. Another student drew a rhombus that was not a square.

Select the **three** properties that both figures have.

☐   A. They have four right angles.

☐   B. They have four sides that are the same length.

☐   C. They have two pairs of parallel sides.

☐   D. They have opposite angles that are the same measure.

☐   E. They have four angles that are the same measure.

28. **Part A**

Select the **two** statements that are **incorrect**.

☐ A. 0.1951 rounds to 0.19

☐ B. 1.3976 rounds to 1.398

☐ C. 2.8102 rounds to 2.7

☐ D. 5.2547 rounds to 5.25

☐ E. 6.0007 rounds to 6.001

Part B

Select the **two** statements that show a number correctly rounded to the **thousandths** place.

☐ A. 0.1951 rounds to 0.19

☐ B. 1.3976 rounds to 1.398

☐ C. 2.8102 rounds to 2.82

☐ D. 5.2547 rounds to 5.254

☐ E. 6.0007 rounds to 6.001

☐ F. 4.8961 rounds to 4.89

29. A fence post is in the shape of a rectangular prism. One side of the fence post measures 8 inches wide by 6 feet long.

Part A

What is the area, in square inches, of one side of the fence post?

Enter your answer in the box.

[   ]

Part B

Jose is building a fence using 18 fence posts, each with a width of 8 inches. What is the total width, in feet, of all the fence posts combined?

Enter your answer in the box.

[   ]

30. Of the sandwiches made in the school lunchroom, $\frac{4}{9}$ of the sandwiches are turkey and $\frac{2}{6}$ are ham.

Part A

For each fraction in the table, select the box to show if it is equivalent to $\frac{4}{9}$, $\frac{2}{6}$, or neither.

	$\frac{4}{12}$	$\frac{7}{12}$	$\frac{6}{18}$	$\frac{8}{18}$	$\frac{10}{18}$
$\frac{4}{9}$	○	○	○	○	○
$\frac{2}{6}$	○	○	○	○	○
Neither	○	○	○	○	○

Part B

What fraction of the sandwiches are either turkey or ham?

Enter your answer in the boxes.

$$\frac{\boxed{}}{\boxed{}}$$
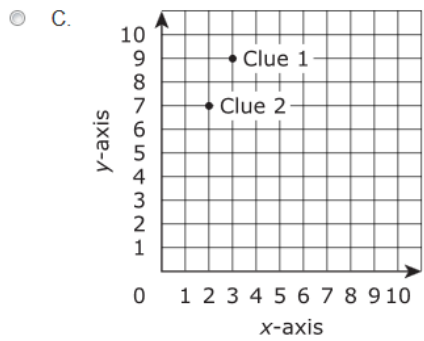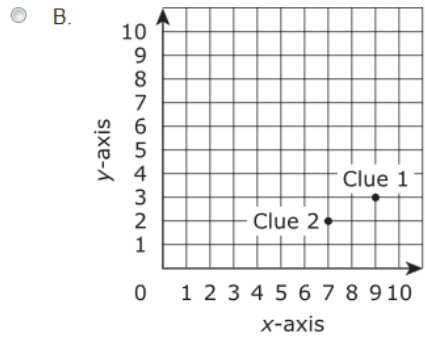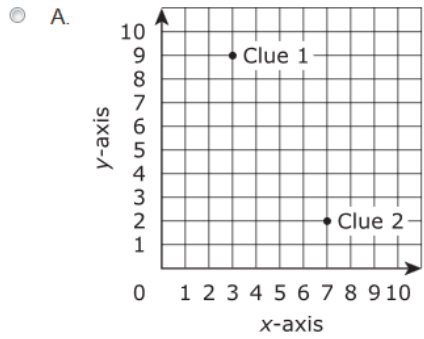
31. Bryan is planning a treasure hunt for his friends in his backyard. He hides four clues. The first two clues are at the coordinates shown.
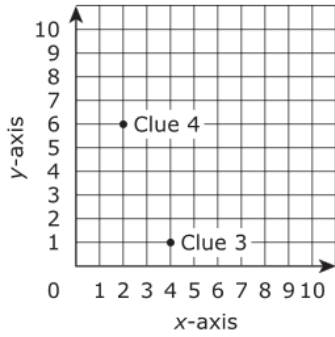
- Clue 1: (3, 9)
- Clue 2: (7, 2)

Part A

The coordinate planes represent Bryan's backyard. Which coordinate plane shows the correct locations of Clue 1 and Clue 2?

A.

B.

C.

D.
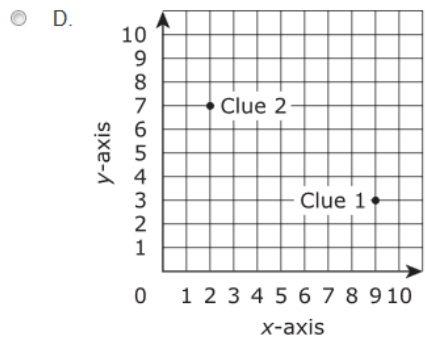
Part B

Bryan hides Clue 3 and Clue 4 at the coordinates shown on the coordinate plane. What are the coordinates of Clue 3 and Clue 4?

○ A. Clue 3: (1, 4); Clue 4: (6, 2)

○ B. Clue 3: (4, 1); Clue 4: (6, 2)

○ C. Clue 3: (4, 1); Clue 4: (2, 6)

○ D. Clue 3: (1, 4); Clue 4: (2, 6)

32. An employee at a home improvement store is putting boxes of nails on shelves. There are 137 boxes of large nails. Each box of large nails contains 125 nails. There are 284 boxes of small nails. Each box of small nails contains 275 nails.

Part A

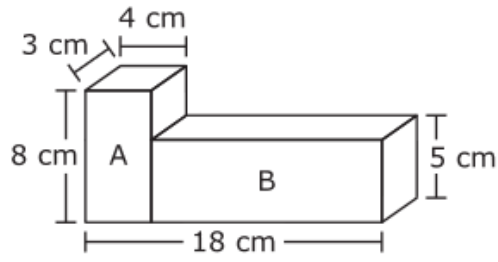What is the total number of nails in all the boxes of large nails?

Enter your answer in the box.

[   ]

Part B

What is the total number of nails in all the boxes of small nails?

Enter your answer in the box.

[   ]

33. Shari is building a toy. She has to attach right rectangular prism A to right rectangular prism B. A model of the toy is shown.

Part A

Create an equation to find the total volume of the toy. Numbers may be used more than once.

Drag and drop the correct number into each box.

| 5 | 8 | 3 | 4 | 14 | 18 |

$3 \times \boxed{} \times \boxed{} + 3 \times \boxed{} \times \boxed{}$

Part B

What is the total volume of the toy?

Enter your answer in the box.

$\boxed{}$ cubic centimeters

34. A store has 48 boxes of computer keyboards and 48 boxes of games.

Each box of computer keyboards contains 25 keyboards and each box of games contains 52 games.

The computer keyboards are sold for $32 each and the games are sold for $18 each.

Part A

What is the total amount of money the store can earn from selling all the computer keyboards?

Enter your answer in the box.

$ [   ]

Part B

What is the total amount of money the store can earn from selling all the games?

Enter your answer in the box.

$ [   ]