VIRGINIA STANDARDS OF LEARNING

Released Test

GRADE 3

MATHEMATICS

2009 Mathematics Standards of Learning

Released Spring 2014

Property of the Virginia Department of Education

There is a section break at the midpoint of the Grade 3 Mathematics test.

SAMPLE A

Carlos made this tally chart to record the chores done by 12 of the students in his class.

Chores Done by Students

Chore	Number of Students
Washing Dishes	|
Walking Dog	𝍸
Emptying Trash	|||
Cleaning Room	|||

Which chore was done by 5 students?

- **A** Washing Dishes
- **B** Walking Dog
- **C** Emptying Trash
- **D** Cleaning Room

Directions: Type your answer in the box.

SAMPLE B

$2 \times 5 = \underline{\ ?\ }$

Which number sentence will $9 + 6 = 15$ help solve?

- **A** $15 - 9 = \_\_\_$
- **B** $15 \times 9 = \_\_\_$
- **C** $15 \div 9 = \_\_\_$
- **D** $15 + 9 = \_\_\_$

Two sets of circles are shown.

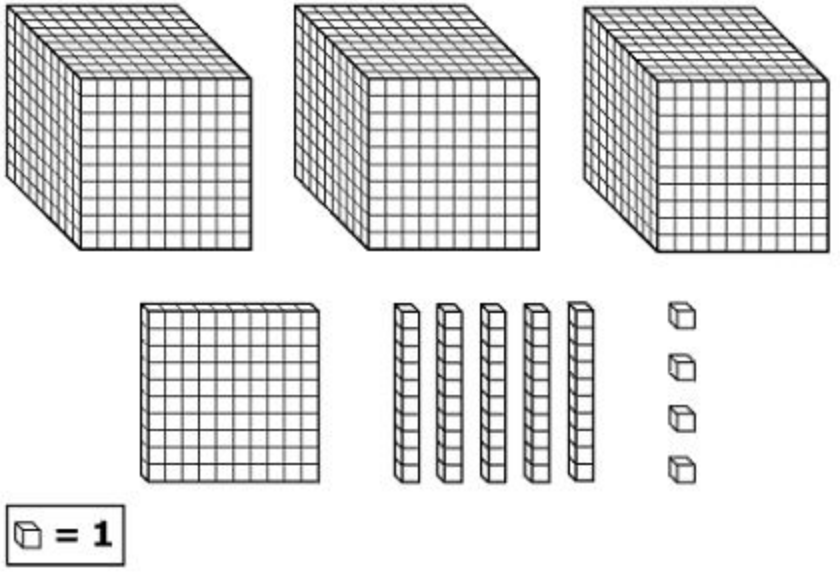
Set S 

Set T 

Which of the following correctly compares the fraction of circles shaded in Set S to the fraction of circles shaded in Set T ?

- **A** $\frac{3}{11} > \frac{7}{11}$
- **B** $\frac{8}{11} < \frac{7}{11}$
- **C** $\frac{3}{11} > \frac{4}{11}$
- **D** $\frac{3}{11} < \frac{4}{11}$

The place value model shown represents a number.



What number is represented by this place value model?

- **A** 354
- **B** 454
- **C** 3,154
- **D** 4,054

Directions: Click and drag a number to each correct box in the table.

Round 5,647 to the places shown.

- **Nearest thousand**
- **Nearest hundred**
- **Nearest ten**

5,647

Rounded to the Nearest Thousand	Rounded to the Nearest Hundred	Rounded to the Nearest Ten

5,000	5,640
5,600	6,000
5,650	5,700

Two packages of eggs are shown.

Package P

Package Q

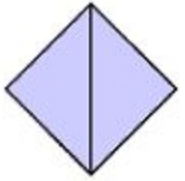
Which statement correctly compares the fraction of the number of eggs in Package P to the fraction of the number of eggs in Package Q ?

- **A** $\frac{4}{12} < \frac{3}{12}$
- **B** $\frac{4}{12} > \frac{9}{12}$
- **C** $\frac{8}{12} > \frac{9}{12}$
- **D** $\frac{8}{12} < \frac{9}{12}$

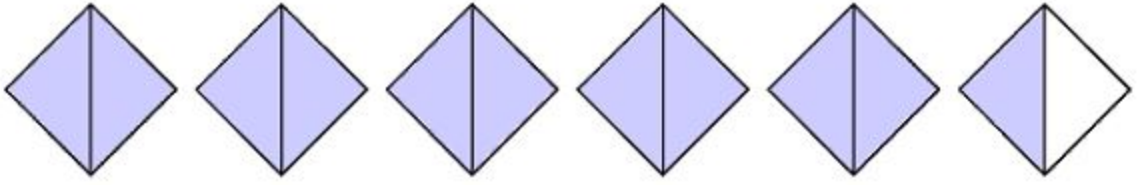
Which shows the number 78,025 written in word form?

- **A** Seven hundred eight thousand, two hundred fifty
- **B** Seven hundred eight thousand, twenty-five
- **C** Seventy-eight thousand, two hundred fifty
- **D** Seventy-eight thousand, twenty-five

This model is shaded to represent one whole.



Look at the following model.



What number do the shaded parts in this model represent?

- **A** $\frac{1}{12}$
- **B** $\frac{11}{12}$
- **C** $5\frac{1}{2}$
- **D** $10\frac{1}{2}$

Which number sentence can be completed using the basic fact sentence $3 \times 2 = 6$?

- **A** $12 \div 6 = \_\_\_$
- **B** $6 \div 3 = \_\_\_$
- **C** $6 \times 3 = \_\_\_$
- **D** $3 + 2 = \_\_\_$

Directions: Click and drag each selected symbol to a box.

Select the symbol that will make each number sentence true.

78 ☐ 78	2,288 ☐ 2,199

>
=
<

In which group are exactly $\frac{3}{8}$ of the shapes circles?

A 

B 

C 

D 

What number goes in the box to make this number sentence true?

$$63 \div \square = 9$$

- **A** 6
- **B** 7
- **C** 8
- **D** 9

This model is shaded to represent one whole.

These two models are each shaded to represent a fraction.

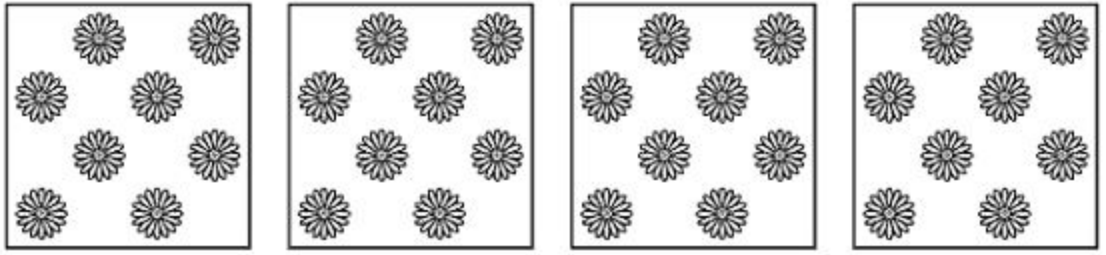
Model 1

Model 2

What is the sum of these two fractions?

- **A** $\frac{1}{14}$
- **B** $\frac{1}{7}$
- **C** $\frac{5}{14}$
- **D** $\frac{5}{7}$

Which number sentence best represents this set of flowers?

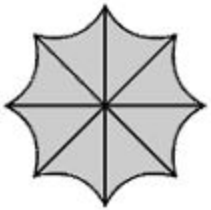


- **A** $32 \div 4 = \underline{?}$
- **B** $32 - 8 = \underline{?}$
- **C** $8 + 4 = \underline{?}$
- **D** $8 + 8 = \underline{?}$

Kiku had a total of 35 plants at her store on Tuesday morning. During the day, she sold 26 of these plants and then received 136 new plants. At the end of the day, exactly how many plants did Kiku have?

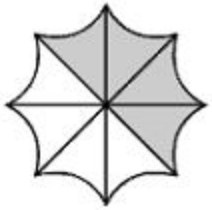
- **A** 9
- **B** 61
- **C** 145
- **D** 197

This model is shaded to represent one whole.

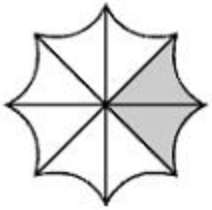


These two models are each shaded to represent a fraction.

Model 1



Model 2



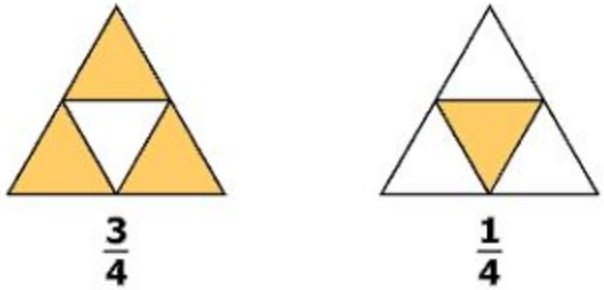
What is the difference between these two fractions?

- **A** $\frac{2}{8}$
- **C** $\frac{10}{16}$
- **B** $\frac{6}{16}$
- **D** $\frac{6}{8}$

Directions: Type your answer in the box.

A store has 57 packages of gum with 5 pieces of gum in each package. What is the total number of pieces of gum in these packages?

What is $\frac{3}{4}+\frac{1}{4}$?

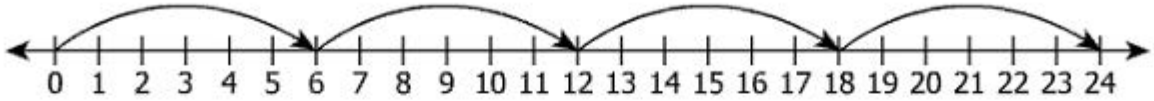


- A $1\frac{1}{4}$
- B 1
- C $\frac{4}{8}$
- D $\frac{2}{8}$

$3{,}000 - 285 = \underline{\quad ? \quad}$

- **A** 2,285
- **B** 2,715
- **C** 2,815
- **D** 3,285

Which of these is best represented by this number line?



- **A** $24 + 4$
- **B** $24 - 4$
- **C** $6 + 4$
- **D** 4×6

Directions: Click on a box to choose each multiplication fact you want to select. You must select all correct multiplication facts.

Select each multiplication fact that equals 48.

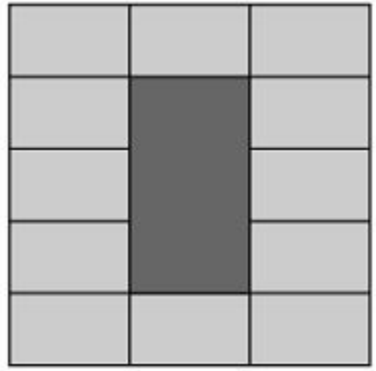
4×8	6×9	12×4
7×6	8×6	5×8

The first section of the test ends here.

Alex worked for 5 hours raking leaves. How many minutes are equivalent to 5 hours?

- **A** 500 minutes
- **B** 300 minutes
- **C** 150 minutes
- **D** 120 minutes

Harry drew a picture with the figures shown.



Which best describes the figures in this picture?

- **A** Cubes
- **B** Squares
- **C** Rectangles
- **D** Rectangular prisms

Which is the most reasonable length of a bed?

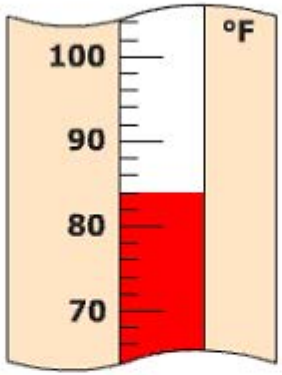
- **A** 6 feet
- **B** 6 inches
- **C** 6 meters
- **D** 6 centimeters

Which is closest to the time shown on this clock?

- **A** 4:45
- **B** 5:45
- **C** 9:05
- **D** 9:25

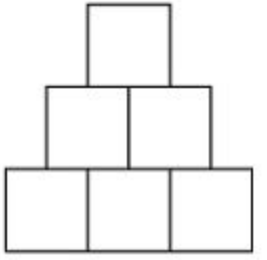
Directions: Type your answer in the box.

What is the temperature on this thermometer?



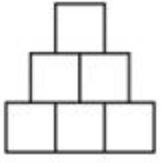
°F

Jack built a tower of blocks as shown.

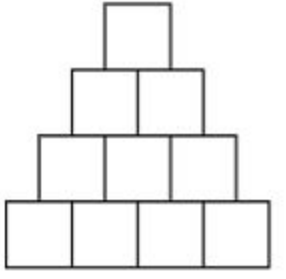


Which tower of blocks appears to be congruent to Jack's tower of blocks?

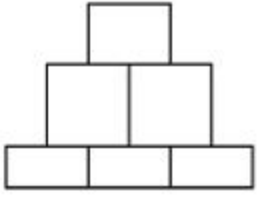
○ **A**



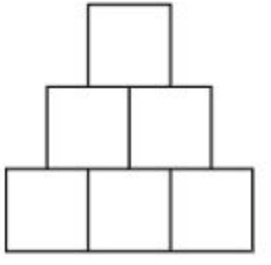
○ **C**



○ **B**



○ **D**

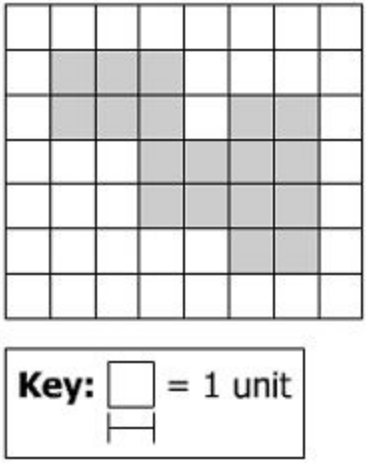


Franklin began selling lumber in the morning at the time shown on the clock.

He finished selling lumber three hours later. At what time did Franklin finish selling lumber?

- **A** 8:45 A.M.
- **B** 9:45 A.M.
- **C** 10:45 A.M.
- **D** 11:45 A.M.

What is the perimeter of the shaded figure on this grid?



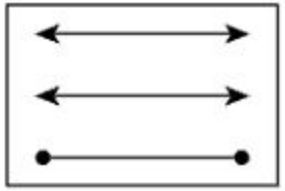
- **A** 18 units
- **B** 19 units
- **C** 22 units
- **D** 24 units

Christina has the money shown.

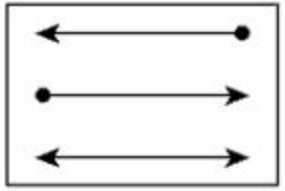
Exactly how much money does Christina have?

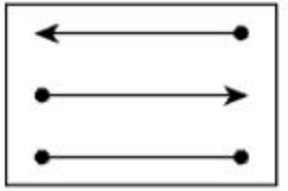
- **A** $3.50
- **B** $3.60
- **C** $3.85
- **D** $4.05

Alfred drew two rays and a line segment in his geometry notebook. Which of these could be the picture Alfred drew?

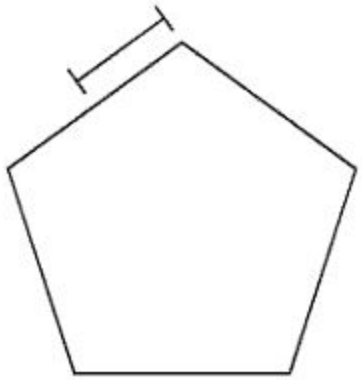
A 

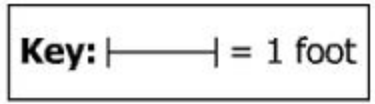
C 

B 

D 

Each side of this figure is the same length.





Which measurement is closest to the perimeter of this figure?

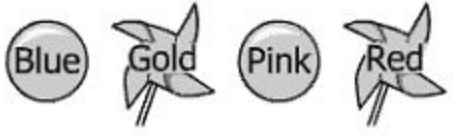
- **A** 5 feet
- **B** 8 feet
- **C** 10 feet
- **D** 12 feet

This chart shows the type of toy and color choices for a reward in a teacher's basket.

Reward Choices

Type of Toy	Color
	Blue Gold Pink Red

Which shows all the possible outcomes for a reward using one type of toy and one color?

- **A** 

- **B** 

- **C** 

- **D** 

This pattern repeats after the first four circles. Joanne removed two circles from this repeating pattern.

Which ordered set of circles did she remove?

- A 
- C 
- B 
- D 

Tia surveyed 14 students. She asked each student to choose one favorite food from four choices. Which chart could show the data from Tia's survey?

○ **A**

Favorite Foods

Food	Number of Students
Pizza	6
Spaghetti	2
Hamburger	5
Salad	3

○ **B**

Favorite Foods

Food	Number of Students
Pizza	5
Spaghetti	4
Hamburger	3
Salad	2

○ **C**

Favorite Foods

Food	Number of Students
Pizza	8
Spaghetti	4
Hamburger	6

○ **D**

Favorite Foods

Food	Number of Students
Pizza	6
Spaghetti	2
Hamburger	2

This table shows the number of minutes it takes Kendal to run laps around a track.

Laps Around a Track

Total Number of Laps	Number of Minutes
2	6
4	12
6	18
8	24

If the pattern in the table continues in the same way, which of the following should be used to determine how many minutes it takes Kendal to run 10 laps?

- **A** 10×3
- **B** $10 + 6$
- **C** $10 + 24$
- **D** 10×6

Stephanie recorded the number of inches of rainfall in her city during 4 weeks. The graph below shows the results.

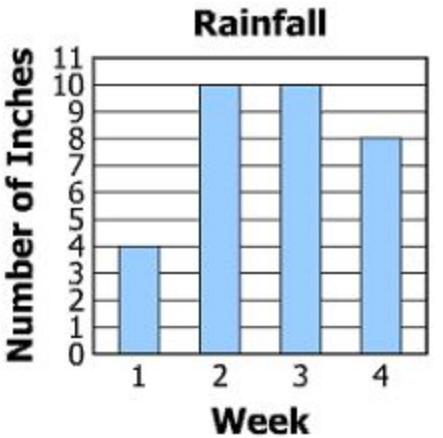
Rainfall

Week	Number of Inches
1	☁ ☁
2	☁ ☁ ☁ ☁ ☾
3	☁ ☁ ☁ ☁ ☁
4	☁ ☁ ☁ ☾

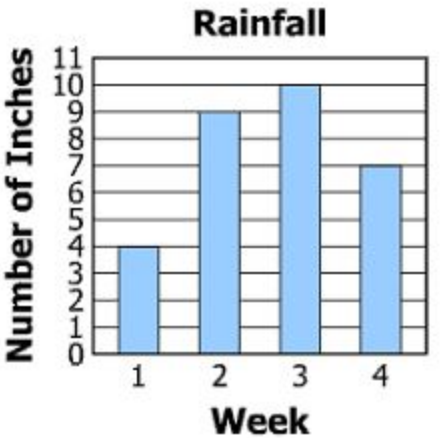
Key: ☁ = 2 inches

Which bar graph shows the same information?

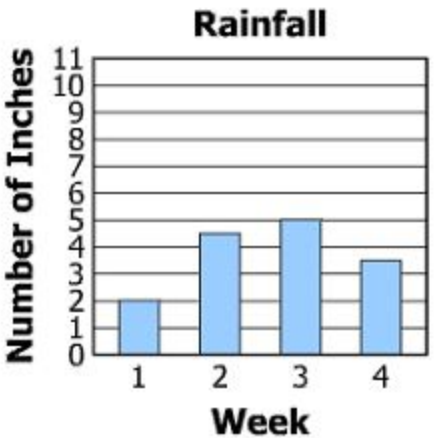
○ **A**



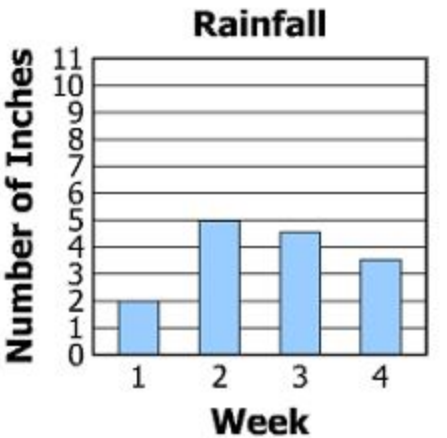
○ **C**



○ **B**



○ **D**



Which number sentence shows the use of the identity property of multiplication?

- **A** $5 \times 3 = 3 \times 5$
- **B** $5 + 0 = 5$
- **C** $4 + 1 = 5$
- **D** $1 \times 5 = 5$

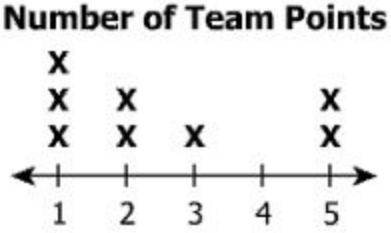
Look at this pattern.

1, 3, 9, 27, 81

Which describes the rule used in this pattern?

- **A** Divide by 9
- **B** Multiply by 3
- **C** Subtract 2
- **D** Add 2

This line plot shows the number of points scored by students on a team.



What was the total number of points scored by the students?

- **A** 20
- **B** 19
- **C** 10
- **D** 8

Directions: Click and drag 8 cards to the bag. You may use each card more than one time.

Debi will pick a card from the bag without looking. Place 8 cards in the bag to show the likelihood of Debi picking a card with a star is equally likely as picking a card with a heart.

Same-sized Cards