



**NEW ENGLAND
COMMON ASSESSMENT PROGRAM**

**Released Items
2013**

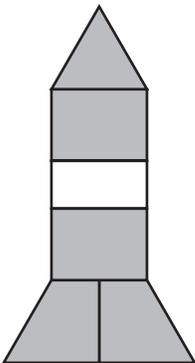
**Grade 4
Mathematics**

Mathematics

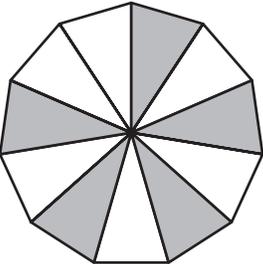


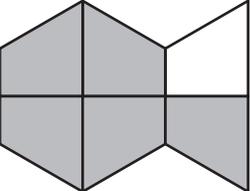
Items with this symbol were selected from Session One—no calculators or other mathematics tools allowed.

- 1 Kenneth made a design and shaded $\frac{5}{6}$ of the design gray. Which design could he have made?

A. 

B. 

C. 

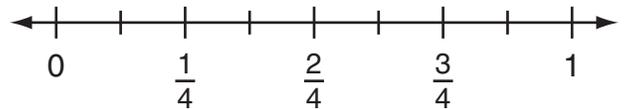
D. 



- 2 Which is another way to write 590?

- A. 59 tens
- B. 59 hundreds
- C. 50 tens + 9 ones
- D. 5 hundreds + 9 ones

- 3 Look at this number line.

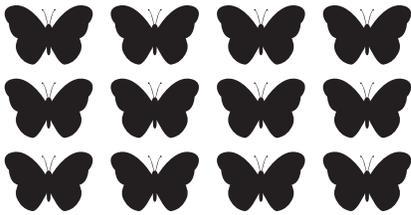


What fraction is equivalent to $\frac{3}{4}$?

- A. $\frac{3}{6}$
- B. $\frac{6}{8}$
- C. $\frac{4}{3}$
- D. $\frac{6}{4}$



- 4 Look at this group of butterflies.



Holly wrote two different number sentences that correctly represent this group of butterflies. Which two number sentences did she write?

- A. $3 \times 4 = \square$
 $3 + 4 = \square$
- B. $3 + 4 = \square$
 $3 + 3 + 3 + 3 = \square$
- C. $3 \times 4 = \square$
 $3 \times 3 \times 3 \times 3 = \square$
- D. $3 \times 4 = \square$
 $3 + 3 + 3 + 3 = \square$

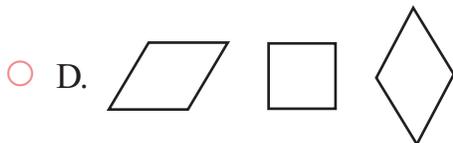
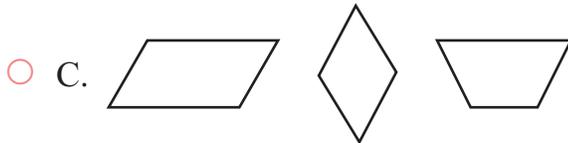
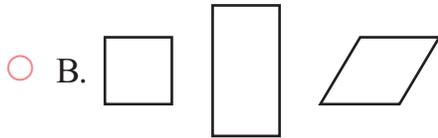


- 5 Jamie had 500 seeds in a bag. He planted 132 seeds in his garden and 115 seeds in flowerpots. How many seeds does Jamie have left in the bag?
- A. 163
- B. 247
- C. 253
- D. 347

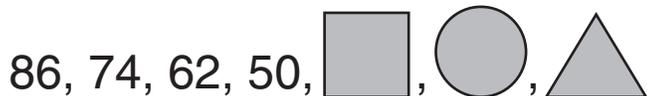


- 6 Some people from Quincy School visited a firehouse. There were 9 teachers and 8 groups of students. Each group had 4 students. How many people from Quincy School visited the firehouse?
- A. 44
- B. 41
- C. 32
- D. 21

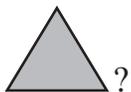
7 In which set are **all** the shapes rhombuses?



8 Kelsey covered some numbers in this pattern with shapes.



What number did Kelsey cover with a



- A. 12
- B. 14
- C. 26
- D. 42

9 Look at these number sentences.

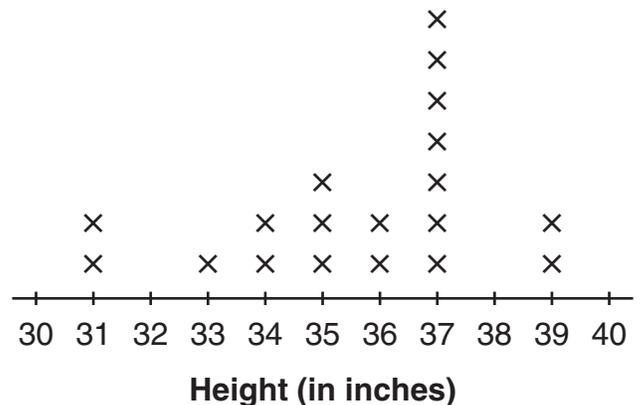
$$5 + 1 + \heartsuit = 10$$

$$11 - \star = \heartsuit$$

Each \heartsuit has the same value. What is the value of the \star ?

- A. 2
- B. 4
- C. 5
- D. 7

10 Each student in Mrs. Rey's class built a snowman. This line plot shows the height of each student's snowman.



Key
x represents 1 snowman

What is the difference in height between the shortest snowmen and the tallest snowmen?

- A. 10 inches
- B. 8 inches
- C. 6 inches
- D. 4 inches



- 11 A toy store sold 546 cars and 285 trucks. How many more cars than trucks did the toy store sell?

- 12 Look at this number sentence. Each square has the **same** value.

$$12 - \square = \square$$

What is the value of each square?

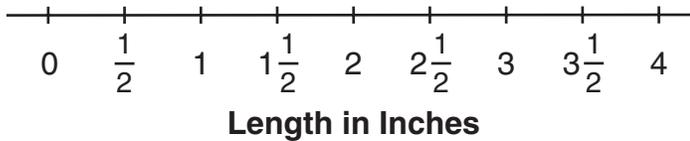


- 13 Kyle measured the lengths of eight paw prints he saw on a hike. He made this list to show the length, in inches, of each paw print he measured.

$1\frac{1}{2}$ inches
2 inches
 $3\frac{1}{2}$ inches
2 inches
 $\frac{1}{2}$ inch
 $\frac{1}{2}$ inch
2 inches
 $2\frac{1}{2}$ inches

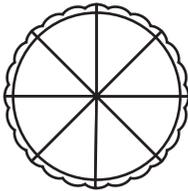
Use the data from Kyle's list to complete this line plot.

Paw Prints

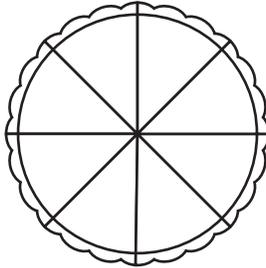


Key
× represents 1 paw print

- 14 Blair and Carmen each made a pie. Each of these pies is cut into equal pieces.



Blair's
pie



Carmen's
pie

Blair ate 2 pieces of her pie.

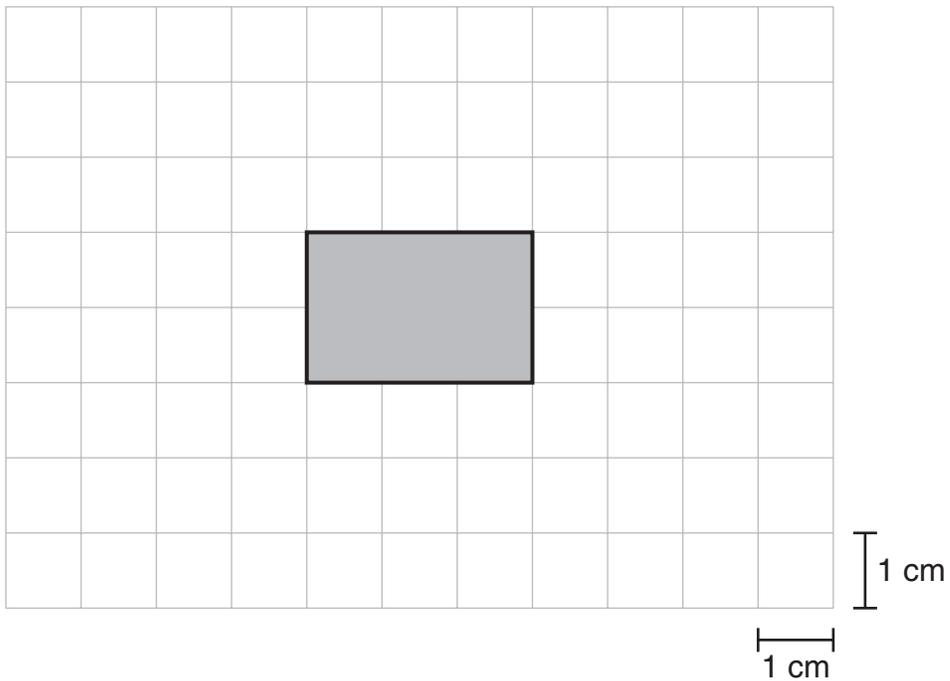
- a. Write a fraction to show the part of the pie Blair ate.

Carmen ate 2 pieces of her pie. Blair said, "Carmen and I ate the same amount of pie."

- b. Explain why Blair's statement is or is not correct.



15 Riley shaded squares gray on this grid to make a shape.



a. What is the **perimeter**, in centimeters, of the shape Riley made?

_____ centimeters

Riley wants to change her shape so that the new shape has a perimeter of 16 centimeters.

b. On the grid above, use your pencil to add shaded squares to Riley's shape so that the new shape has a perimeter of 16 centimeters. Be sure to shade the squares.

- 16 Mr. Larson is making this chart to show the number of students in each fourth-grade class at Wilson School.

Fourth-Grade Classes

Class	Number of Students
Mr. Hanson	20
Ms. Polk	21
Mrs. Watson	21
Ms. Yazzie	18
Mrs. Lopez	
Mr. Blake	
Mrs. Ryan	

- There is a total of 137 students in the fourth grade.
- The most common number of students in a class is 20.

Complete the chart to show how many students could be in Mrs. Lopez’s class, Mr. Blake’s class, and Mrs. Ryan’s class. Show your work or explain how you know.