



**NEW ENGLAND  
COMMON ASSESSMENT PROGRAM**

**Released Items  
2012**

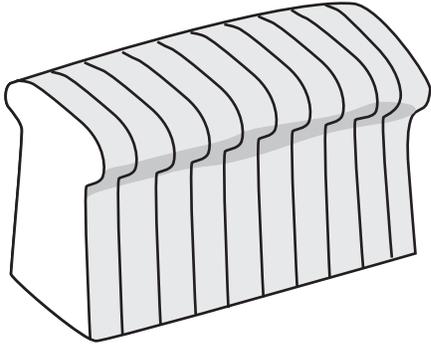
**Grade 5  
Mathematics**

# Mathematics



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

- 1 Mrs. Kim's loaf of bread was cut into 10 equal slices.



After making sandwiches, Mrs. Kim had only 2 slices of bread left. What fraction of the loaf of bread did Mrs. Kim **use** to make sandwiches?

- A.  $\frac{1}{5}$
- B.  $\frac{2}{5}$
- C.  $\frac{3}{5}$
- D.  $\frac{4}{5}$

- 2 The chart below shows the height of six volcanoes in Alaska.

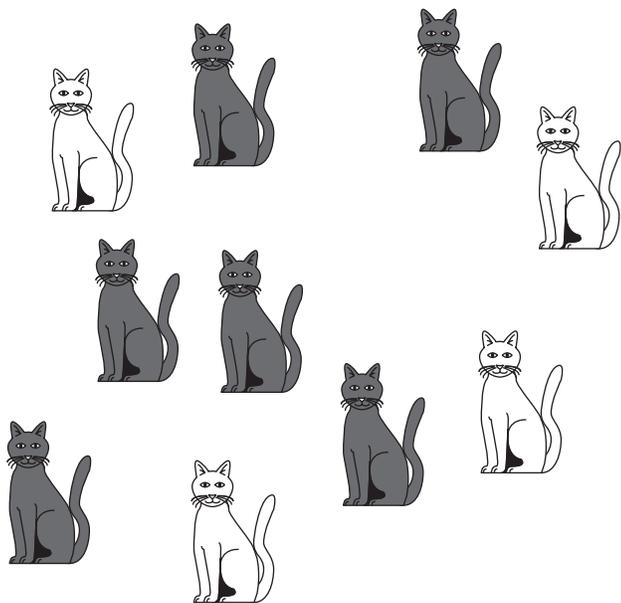
**Volcanoes in Alaska**

Volcano	Height (in feet)
Augustine	4205
Fisher	3593
Kanaga	4287
Little Sitkin	3942
Segula	3782
Yantarni	4382

Which volcano has a height that is greater than Little Sitkin's height but less than Kanaga's height?

- A. Augustine
- B. Fisher
- C. Segula
- D. Yantarni

3 Look at this set of cats.



What fraction of the cats is shaded gray?

- A.  $\frac{4}{10}$
- B.  $\frac{1}{2}$
- C.  $\frac{3}{5}$
- D.  $\frac{2}{3}$

4 The  $\diamond$  and the  $\bigcirc$  are different numbers greater than 1 that make this sentence true.

$$\diamond \div \bigcirc = 5$$

Which other number sentence must be true?

- A.  $\diamond = 5 + \bigcirc$
- B.  $\diamond = 5 - \bigcirc$
- C.  $\diamond = 5 \times \bigcirc$
- D.  $\diamond = 5 \div \bigcirc$



- 5 Lee gave this clue to describe his favorite number.

My favorite number is 36 divided by 4.

Which other clue could Lee give to describe his favorite number?

A. My favorite number is 4 multiplied by 9.

B. My favorite number is 36 divided by 9.

C. My favorite number multiplied by 4 equals 36.

D. My favorite number multiplied by 9 equals 36.



- 6 Jessica bought packages of hot dogs for a picnic. Each package contains 8 hot dogs. Which of the following could be the number of hot dogs Jessica bought?

A. 28  
B. 36  
C. 44  
D. 56

- 7 Which three-dimensional shape has six faces?

A. a sphere  
B. a cylinder  
C. a triangular prism  
D. a rectangular prism

- 8 A teacher has 10 yards of ribbon to use for art projects. Each art project uses 18 inches of ribbon. How many art projects can be made with 10 yards of ribbon?

3 feet = 1 yard  
12 inches = 1 foot



A. 5  
B. 6  
C. 15  
D. 20

9 The Youth Center is having a kickball tournament. There will be 8 people on each team. Which expression represents the total number of people in the kickball tournament if there are  $n$  teams?

- A.  $n - 8$
- B.  $n + 8$
- C.  $n \div 8$
- D.  $n \times 8$

10 This chart shows the number of points each team earned during Field Day.

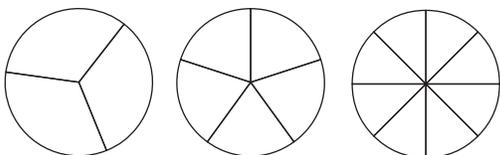
**Field Day**

Team	Points
Blue	8
Red	10
Yellow	9
Green	3

Which team earned one-third of the total points?

- A. Blue
- B. Red
- C. Yellow
- D. Green

11 Look at these fraction models.



Write the fractions  $\frac{2}{3}$ ,  $\frac{2}{5}$ , and  $\frac{2}{8}$  in order from least to greatest.



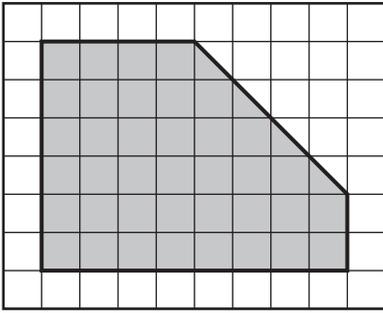
- 12 Mrs. Sarandon asked the students in her class how many pieces of fruit they ate on Tuesday. This list shows the results.

1, 5, 3, 0, 1, 2, 4, 4, 6, 1, 2, 3, 1, 0, 5, 2

What is the mode of this set of data?

- 13 At a sports camp, a group of 132 campers is playing volleyball. Each volleyball team has 6 players.
- Write a number sentence, using division, that shows how many volleyball teams are at the camp.
  - Write a number sentence, using multiplication, that shows how many volleyball teams are at the camp.

- 14 Erin drew this plan for a flower garden.

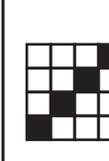


**Key**

 represents 1 square foot of Erin's flower garden

One package of flower seeds covers an area of 10 square feet. What is the fewest number of packages of flower seeds Erin will need to completely cover her flower garden? Show your work or explain how you know.

- 15 Mr. Randall is tiling his kitchen floor in a pattern of black tiles and white tiles. This table shows the first four steps of the pattern.

			
Step 1	Step 2	Step 3	Step 4

- a. Copy and complete this table in your Student Answer Booklet.

**Mr. Randall's Tile Pattern**

Step Number	Number of Black Tiles	Number of White Tiles
1	2	2
2		
3		
4		

- b. What will be the total number of each color tile in Step 5? Show your work or explain how you found your answer.