New England Common Assessment Program

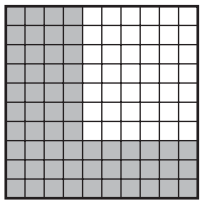
Released Items
2006

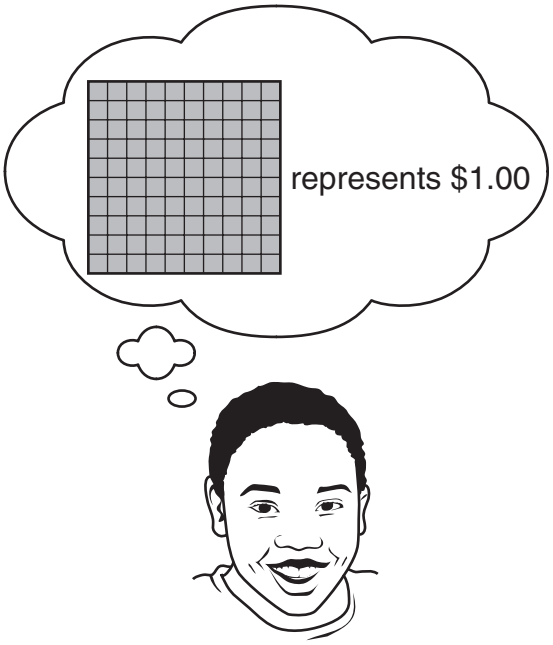
Grade 5
Mathematics

Mathematics

Item selected from Session One—no calculators or other mathematics tools allowed.

1 This grid is shaded gray to represent the cost of a muffin.

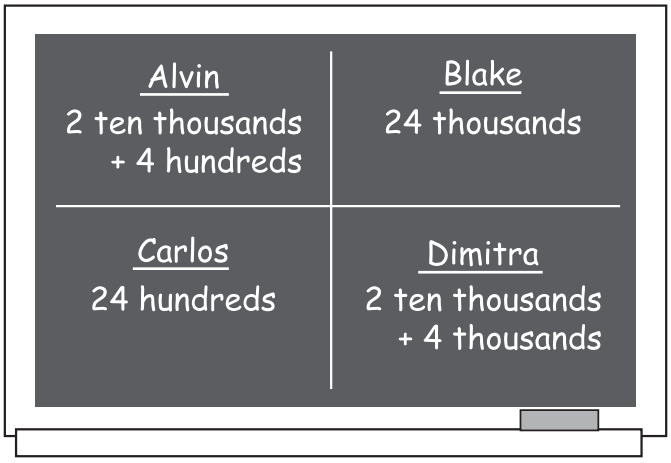




What is the cost of the muffin?

A. $0.43
B. $0.46
C. $0.58
D. $0.70

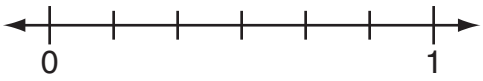
2 Look at the students' work on the blackboard.



Which two students named the same number?

A. Alvin and Blake
B. Alvin and Carlos
C. Blake and Carlos
D. Blake and Dimitra

3 You may use the number line below to answer this question.



Which fractions are in order from least to greatest?

A. $\frac{1}{2}, \frac{2}{3}, \frac{2}{6}$

B. $\frac{1}{2}, \frac{2}{6}, \frac{2}{3}$

C. $\frac{2}{6}, \frac{2}{3}, \frac{1}{2}$

D. $\frac{2}{6}, \frac{1}{2}, \frac{2}{3}$

4 A festival is taking place on Mr. Wilson's field. The picture below shows how the field is divided into ten equal sections.

Mr. Wilson's Field

Food	Parking
Games	Parking
Food	Games
Parking	Food
Parking	Games

What fraction of the field is used for parking?

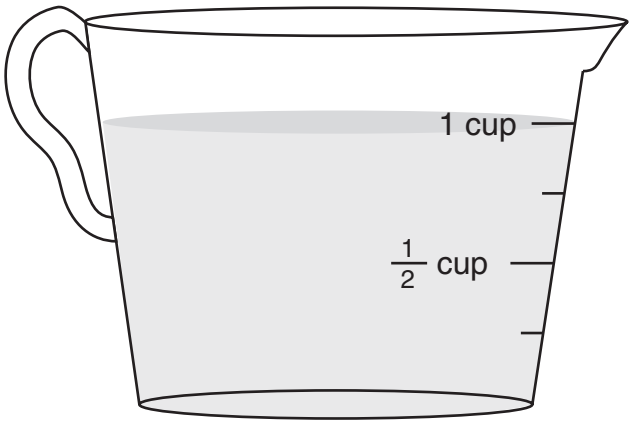
A. $\frac{3}{10}$

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

C. $\frac{2}{5}$

D. $\frac{4}{6}$

5 Mr. Diaz has 1 cup of gravy in a measuring cup.



He pours out $\frac{1}{4}$ cup of gravy. How much gravy is left in the measuring cup?

A. $\frac{1}{4}$ cup

B. $\frac{1}{2}$ cup

C. $\frac{2}{3}$ cup

D. $\frac{3}{4}$ cup

6 Quinn used a total of 56 apples to make pies. Each pie was made with the same number of apples. How many pies could Quinn have made?

A. 3

B. 7

C. 9

D. 11

7 Mrs. Lombardi had 2 hours to prepare for a party. The chart below shows the amount of time she spent completing different tasks.

Time Mrs. Lombardi Spent on Different Tasks

Task	Time
Decorated cake	20 minutes
Made punch	15 minutes
Made sandwiches	50 minutes
Put up balloons	?

How much time did Mrs. Lombardi have to put up the balloons?
[1 hour = 60 minutes]

A. 15 minutes
B. 25 minutes
C. 35 minutes
D. 45 minutes

8 Beverly uses $\frac{1}{4}$ cup of applesauce in place of every $\frac{1}{3}$ cup of butter in her cookie recipe. How many cups of applesauce will Beverly use in place of 1 cup of butter?

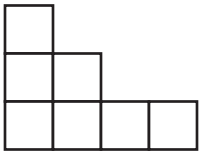
A. $\frac{1}{12}$

B. $\frac{1}{7}$

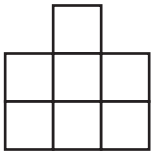
C. $\frac{2}{4}$

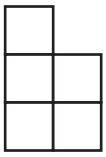
D. $\frac{3}{4}$

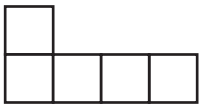
9 Leah made this figure using grid paper.

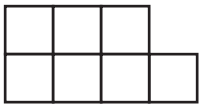


Without any gaps or overlaps, which figure fits together with Leah's figure to form a rectangle congruent to the rectangle below?

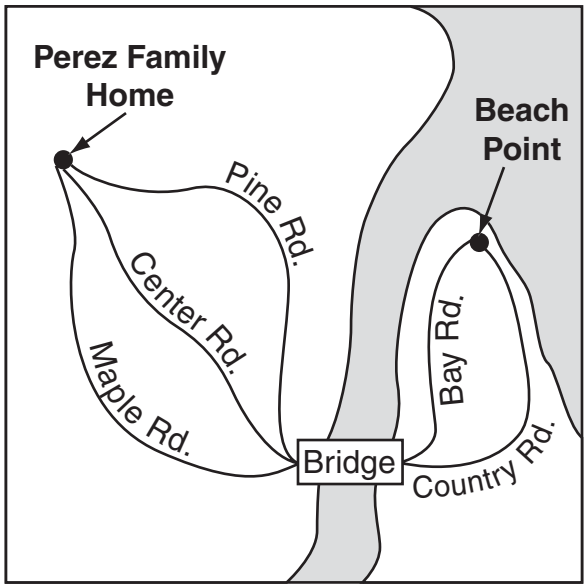
A. 

B. 

C. 

D. 

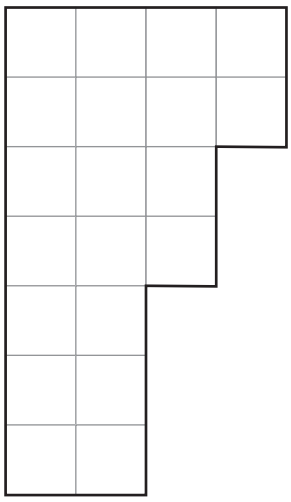
10 The diagram below shows all the roads the Perez family can take from their home to Beach Point.



How many different ways can the Perez family drive from their home to Beach Point?

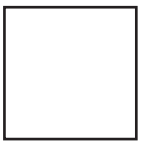
A. 2
B. 3
C. 5
D. 6

11 Using grid paper, Fletcher made this model of the shape of Vermont.

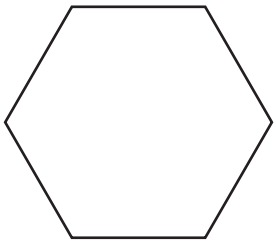


He learned that $\frac{3}{4}$ of Vermont is forest. How many ☐ should Fletcher shade gray to represent the fraction of Vermont that is forest?

12 Karen used toothpicks to make the two shapes shown below.



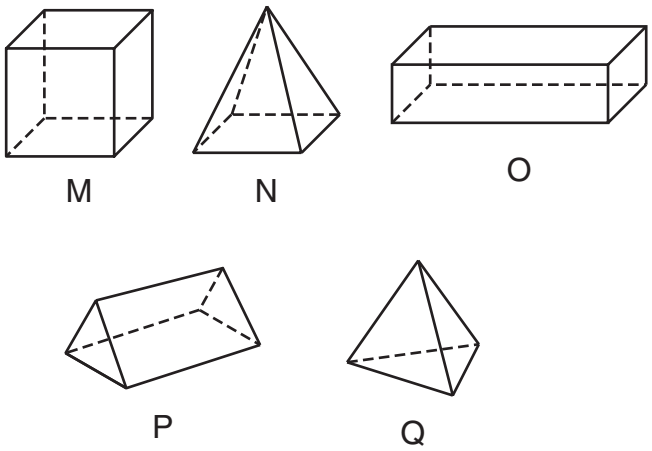
Square



Hexagon

She used a total of 24 toothpicks to make the square. She made the hexagon so that its sides are the same length as the sides of the square. How many toothpicks did Karen use to make the hexagon?

13 Jack and Diane each picked a mystery solid from the ones shown below.



a. Here are the clues to Jack's mystery solid.

Clue 1: The mystery solid is a prism.

Clue 2: The mystery solid has 5 faces.

Which solid is Jack's mystery solid?

b. Here are the clues to Diane's mystery solid.

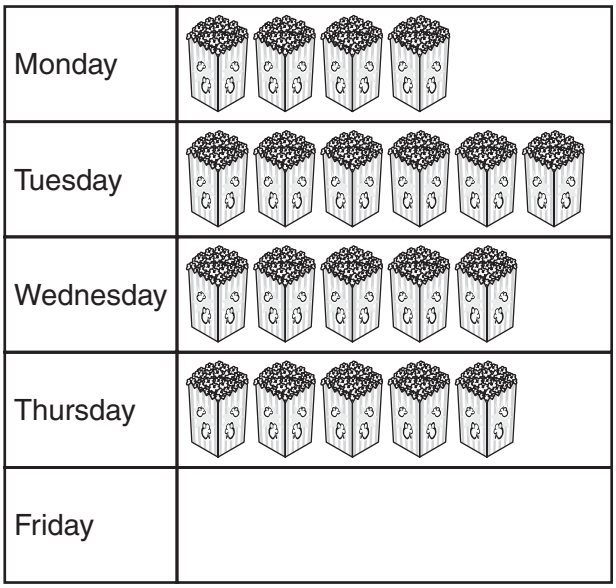
Clue 1: The mystery solid is a prism.

Clue 2: All of its faces are the same shape.

Which solid is Diane's mystery solid?

14 Students sold a total of 130 bags of popcorn during a popcorn sale. Marge is making this pictograph to show the number of bags of popcorn sold on each day of the sale. The sales for Friday are missing.

Popcorn Sales

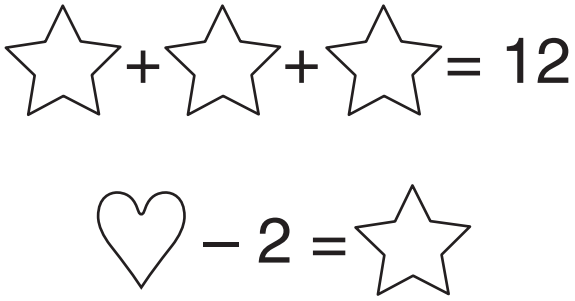


Key

represents 5 bags of popcorn

How many does Marge need to add to the pictograph to show Friday's sales? Show your work or explain how you know.

15 In these number sentences, each star represents the same number and the heart represents a different number.



a. What number does the star represent? Show your work or explain how you know.

b. What is the value of one star plus two hearts? Show your work or explain how you know.

Grade 5 Mathematics Released Item Information

Released Item Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
No Tools Allowed						✓	✓	✓	✓	✓			✓		
Content Strand[1]	NO	NO	NO	NO	NO	NO	NO	NO	GM	DP	NO	GM	GM	DP	FA
GLE Code	4-1	4-1	4-2	4-2	4-3	4-4	4-4	4-4	4-4	4-4	4-1	4-6	4-3	4-1	4-4
Depth of Knowledge Code	1	1	2	2	2	1	2	3	2	2	2	2	2	3	2
Item Type[2]	MC	MC	MC	MC	MC	MC	MC	MC	MC	MC	SA	SA	SA	SA	CR
Answer Key	C	D	D	C	D	B	C	D	B	D					
Total Possible Points	1	1	1	1	1	1	1	1	1	1	1	1	2	2	4

[1]Content Strand: NO = Numbers & Operations, GM = Geometry & Measurement, FA = Functions & Algebra, DP = Data, Statistics, & Probability

[2]Item Type: MC = Multiple Choice, SA = Short Answer, CR = Constructed Response