New England Common Assessment Program

Released Items
2007

Grade 6
Mathematics

Mathematics

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

1 Which number has the same value as 6 hundred thousands and 23 hundreds?

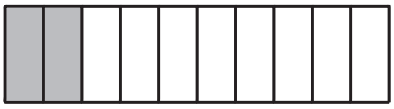
A. 6,002,300
B. 623,000
C. 602,300
D. 600,230

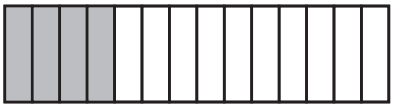
2 This rectangle is shaded gray to represent 1.

Which rectangle is shaded gray to represent 0.4?

A.

B.

C. 

D. 

3 This square is shaded gray to represent the part of Gibson's land that is covered with trees.

Gibson's Land

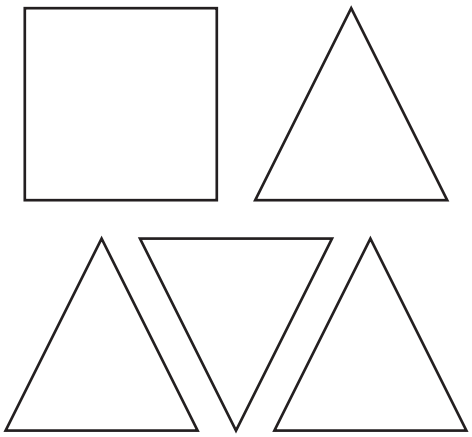
About what percent of Gibson's land is covered with trees?

A. between 10% and 25%
B. between 25% and 50%
C. between 50% and 75%
D. between 75% and 100%

4 Trisha has a job walking 16 dogs for her neighbors. She can walk one, two, or three dogs on each trip to the park. What is the fewest number of trips Trisha takes to walk all 16 dogs?

A. 16
B. 15
C. 6
D. 5

5 These shapes are the 5 faces of a three-dimensional figure.



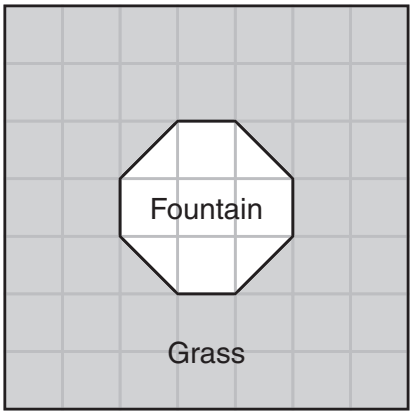
What is the three-dimensional figure?

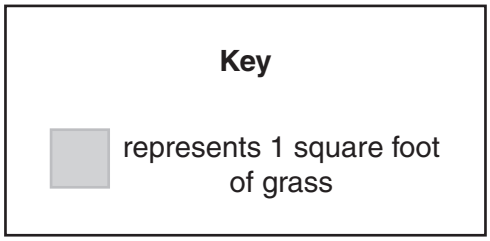
A. cube
B. cone
C. prism
D. pyramid

6 Juan made cones and cylinders out of paper. He cut a total of 10 circles for the bases. Juan made 4 cones. How many cylinders did he make?

A. 1
B. 2
C. 3
D. 6

7 Look at this picture.





What is the area of the grass around the fountain?

A. 46 square feet
B. 44 square feet
C. 42 square feet
D. 40 square feet

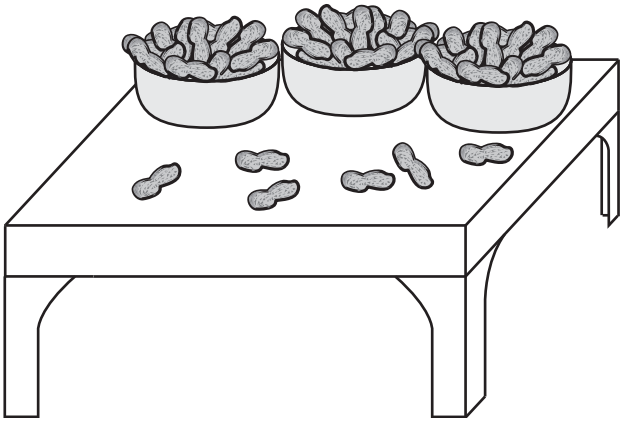
8 Look at this equation.

$$18 = 3d - 6$$

What value of d makes the equation true?

A. 12
B. 8
C. 6
D. 4

9 There is a total of 75 peanuts in the bowls and on the table shown below.



There is the same number of peanuts in each bowl. How many peanuts are in each bowl?

A. 12
B. 19
C. 23
D. 27

10 A yoga teacher collected data on the ages of the people in her class.

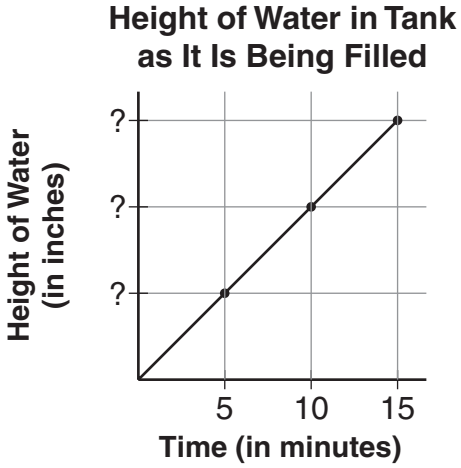
- The median is 36 years old.
- The mean is 42 years old.
- The mode is 50 years old.

Which statement **must** be true?

A. Most people in the class are 42 years old.
B. The oldest person in the class is 50 years old.
C. Each person in the class is either 36, 42, or 50 years old.
D. At least half of the people in the class are 36 years old or younger.

11 A square garden has an area of 49 square feet. What is the **perimeter**, in feet, of the garden?

12 The line graph below shows the height of the water in a water tank as it fills. The numbers representing the heights of the water are missing.



The height of the water in the tank increases at a rate of 4 inches per minute as the tank fills. What are the three missing numbers?

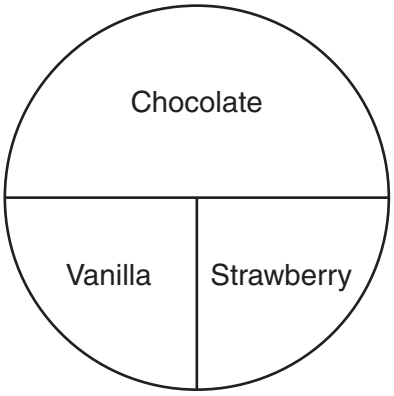
13 Look at this pattern.

Step 1	Step 2	Step 3	Step 4
5 dots	8 dots	11 dots	14 dots

How many dots will be used in Step 20? Show your work or explain how you know.

14 The 24 students in Mr. Allen's class voted on which flavor of ice cream they liked the best. Each student voted for one flavor. The circle graph below compares the number of votes each flavor received.

Ice-Cream Flavor Votes



How many students voted for each flavor? Show your work or explain how you know.

15 The chart below shows the average rainfall in April for four different towns.

Average Rainfall in April

Town	Average Rainfall (in inches)
Fairview	3.35
Milton	4.20
Crawford	3.98
Southport	4.09

a. Which town had the greatest average rainfall?

b. How much more is the average rainfall in Southport than the average rainfall in Fairview? Show your work or explain how you know.

c. The **actual** April rainfall in Fairview this year was 0.8 inch **more than** the average rainfall. What was the actual April rainfall in Fairview? Show your work or explain how you know.

Grade 6 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	GM	GM	GM	FA	FA	DP	GM	DP	FA	DP	NO
GLE Code	5-1	5-1	5-2	5-3	5-3	5-3	5-6	5-4	5-4	5-2	5-6	5-3	5-1	5-1	5-4
Depth of Knowledge Code	1	2	2	2	1	2	2	1	2	2	2	2	3	2	2
Item Type[2]	MC	MC	MC	MC	MC	MC	MC	MC	MC	MC	SA	SA	SA	SA	CR
Answer Key	C	B	B	C	D	C	C	B	C	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