



New York State Testing Program

Mathematics Test Book 1

Grade **6**

March 9–13, 2009



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TIPS FOR TAKING THE TEST

Here are some suggestions to help you do your best:

- Be sure to read carefully all the directions in the test book.
- Read each question carefully and think about the answer before choosing your response.



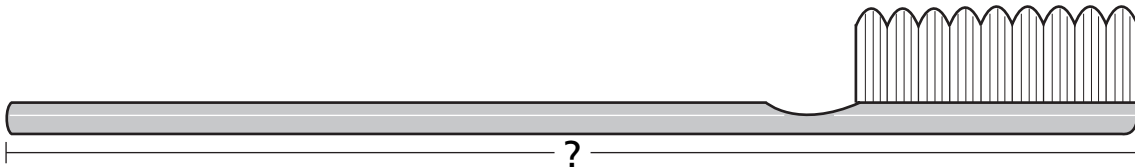
This picture means that you will use your ruler.

Sample A



Use your ruler to help you solve this problem.

How many centimeters long is the toothbrush shown below?



- A 12
- B 13
- C 14
- D 15

Sample B

Kirsten read a number of books, k . Eric read 3 books fewer than Kirsten. What expression can be used to find the number of books Eric read?

- A $k - 3$
- B $k + 3$
- C $3 - k$
- D $3 \times k$

STOP

- 1** Maxine is taking 5 gallons of drinking water on a camping trip. How many quarts of drinking water is Maxine taking on the camping trip?

1 gallon = 4 quarts

- A** 4
- B** 5
- C** 20
- D** 40

- 2** The numbers below represent the ages of five of Terrell's relatives.

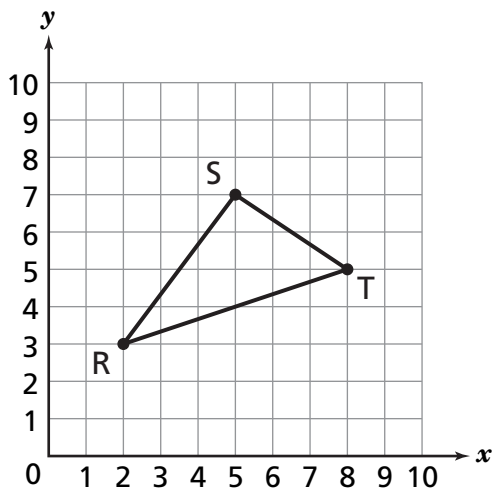
56 99 60 51 99

What is the range of the ages?

- A** 48
- B** 60
- C** 73
- D** 99

Go On

- 3** A triangle is plotted on the coordinate plane below.



Which coordinates represent, in order, the locations of point R, point S, and point T?

- A** (3, 2), (7, 5), and (5, 8)
- B** (2, 3), (7, 5), and (8, 5)
- C** (2, 3), (5, 7), and (8, 5)
- D** (3, 2), (5, 7), and (5, 8)

- 4** What is the expanded form of 9^3 ?

- A** 9×3
- B** $9 + 3$
- C** $9 + 9 + 9$
- D** $9 \times 9 \times 9$

- 5 David measures a side of a piece of wood. The length is 8 feet and the width is one-half of the length. What is the area, in square feet, of the piece of wood?

$$A = lw$$

- A 4
- B 16
- C 32
- D 108
- 6 Nora took 8 bottles of water to a picnic. Of those bottles of water, she and her friends opened a certain number of bottles, b . What expression can be used to determine the number of unopened bottles at the end of the picnic?

- A $8 + b$
- B $b + 8$
- C $8 - b$
- D $b - 8$

- 7 At a sporting goods store, $\frac{3}{10}$ of all the items are baseball items and $\frac{1}{3}$ of all the items are football items. What fraction of the total number of items in the store are baseball or football items?

- A $\frac{19}{30}$
- B $\frac{4}{13}$
- C $\frac{4}{30}$
- D $\frac{3}{13}$

Go On

8

The list below shows the number of dogs that stayed at Doggy Daycare over an eight-day period.

40, 31, 43, 43, 26, 31, 26, 43

What is the mode of these numbers?

- A 40
- B 43
- C 26 and 31
- D 31 and 43

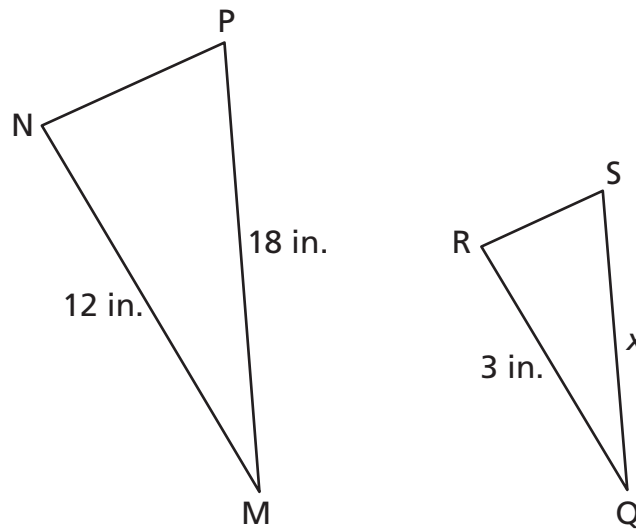
9

Simplify the expression below.

$$3 + 5 \times 2^3 + 3^2$$

- A 39
- B 52
- C 73
- D 88

- 10** Triangle MNP is similar to triangle QRS.



[not drawn to scale]

What is the length of side x in triangle QRS?

- A 4 inches
- B 5 inches
- C 4.5 inches
- D 5.5 inches

- 11** Mr. Ramirez bought 6 tickets to the circus. He spent a total of \$12.00. He used the equation below to determine the cost of each ticket, t .

$$6t = 12.00$$

How much money did Mr. Ramirez spend on each ticket?

- A \$72.00
- B \$18.00
- C \$6.00
- D \$2.00

Go On

12

What is the value of the expression below when $r = 2$?

$$9 - 3r$$

- A 0
- B 3
- C 6
- D 12

13

The table below shows the points earned by five teams in a mathematics game.

MATHEMATICS GAME

Team	Number of Points
Team A	$9\frac{1}{2}$
Team B	$8\frac{3}{4}$
Team C	$9\frac{1}{4}$
Team D	$8\frac{1}{4}$
Team E	$8\frac{1}{2}$

What is the list of the points in order from **greatest to least**?

- A $8\frac{1}{4}$ $8\frac{1}{2}$ $8\frac{3}{4}$ $9\frac{1}{4}$ $9\frac{1}{2}$
- B $9\frac{1}{2}$ $9\frac{1}{4}$ $8\frac{3}{4}$ $8\frac{1}{2}$ $8\frac{1}{4}$
- C $8\frac{3}{4}$ $9\frac{1}{4}$ $8\frac{1}{4}$ $9\frac{1}{2}$ $8\frac{1}{2}$
- D $9\frac{1}{2}$ $9\frac{1}{4}$ $8\frac{3}{4}$ $8\frac{1}{4}$ $8\frac{1}{2}$

14

A clothing store had 30 jackets. If j represents the number of jackets the store then sold, which expression can be used to determine the total number of jackets that were **not** sold?

A $30j$

B $\frac{30}{j}$

C $30 - j$

D $30 + j$

15

Stacy has $2\frac{1}{3}$ yards of fabric. She buys an additional $1\frac{1}{2}$ yards of fabric. How many total yards of fabric does she have?

A $3\frac{1}{5}$

B $3\frac{2}{5}$

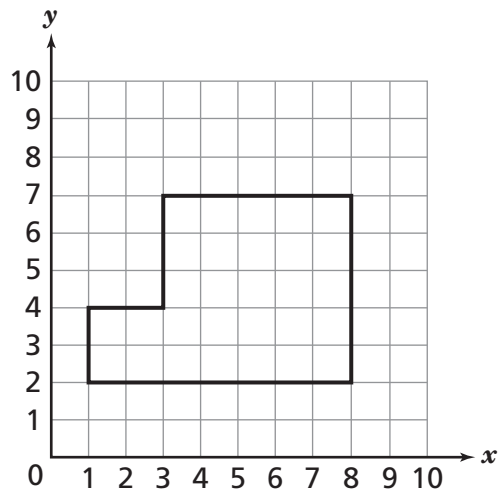
C $3\frac{1}{6}$

D $3\frac{5}{6}$

Go On

16

A diagram of a classroom floor at Hilldale Middle School is drawn on the grid below.



What is the perimeter of the classroom?

- A 12 units
- B 24 units
- C 29 units
- D 35 units

17

Olivia measures the diameter of a circle. If the diameter is 32 centimeters, what is the **radius**, in centimeters?

- A 64
- B 48
- C 32
- D 16

18

Tyler has a container with 2.95 liters of laundry detergent. How many milliliters of detergent are in the container?

1 liter = 1,000 milliliters

- A 0.295
- B 29.5
- C 295
- D 2,950

19

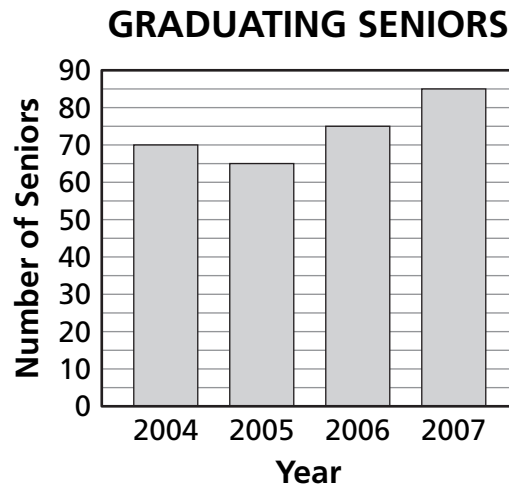
What number is equivalent to $|-27|$?

- A 27
- B -27
- C $\frac{1}{27}$
- D $-\frac{1}{27}$

Go On

20

The bar graph below shows the number of seniors who graduated over a four-year period from Empire High School.



What is the total number of seniors who graduated over the four-year period?

- A** 280
- B** 285
- C** 290
- D** 295

21

Lani has learned 21 of the 84 songs in her piano playbook. What percent of the total number of songs in the playbook has Lani learned?

- A** 75%
- B** 63%
- C** 25%
- D** 21%

22

The dogs in an animal parade are grouped by size. There are 12 small dogs, 8 medium-sized dogs, and 13 large dogs. If one dog is randomly chosen to lead the parade, what is the probability that a large dog will be chosen?

A $\frac{1}{3}$

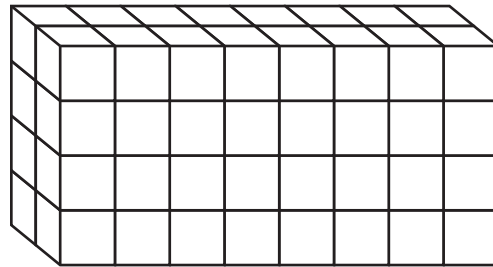
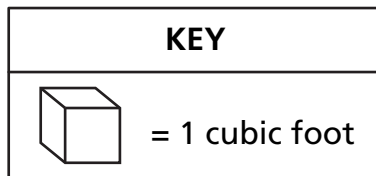
B $\frac{1}{33}$

C $\frac{13}{20}$

D $\frac{13}{33}$

23

What is the volume of the rectangular prism shown below?



A 16 cubic feet

B 32 cubic feet

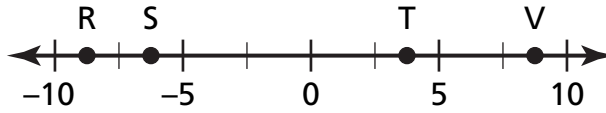
C 56 cubic feet

D 64 cubic feet

Go On

24

Which point on the number line below represents a number that is less than -2.5 but greater than -7.5 ?



- A point R
- B point S
- C point T
- D point V

25

Lin is making a volcano for a science fair. He uses 8 cups of vinegar. How many pints of vinegar does Lin use?

1 pint = 2 cups

- A 4
- B 6
- C 10
- D 16

STOP



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