New York State Testing Program

Mathematics Test
Book 1

Grade **5**

March 5–9, 2007

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.
- You may use your tools to help you solve any problem on the test.
- Read each question carefully and think about the answer before choosing your response.

This picture means that you will use your ruler.

This picture means that you will use your protractor.

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Book 1

Page 1

Sample A

Samuel picked 150 strawberries at the strawberry patch. He gave away all the strawberries to 5 friends. If Samuel gave the same number of strawberries to each friend, how many strawberries did each friend receive?
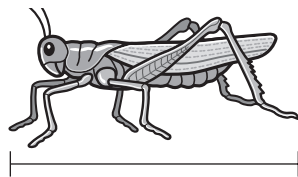
A 30

B 50

C 145

D 155

Sample B

Use your ruler to help you solve this problem.

Kathy caught a grasshopper like the one shown below.

What is the length, in inches, of the grasshopper?

A 1

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

C 2

D $2\frac{1}{2}$

STOP

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Book 1

Page 3

1 Sarah and Andy are filling a fish tank with water. Sarah fills $\frac{1}{5}$ of the tank. Then Andy fills $\frac{2}{5}$ of the tank. How much of the tank have they filled in all?
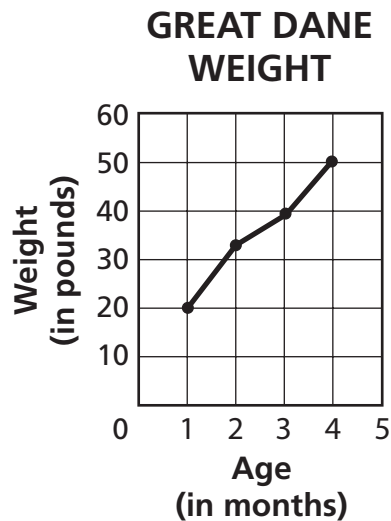
A $\frac{2}{25}$

B $\frac{3}{10}$

C $\frac{2}{5}$

D $\frac{3}{5}$

2 Brady recorded the weight of his Great Dane puppy for 4 months. He entered his data on the line graph below.

GREAT DANE WEIGHT

According to the graph, what was the Great Dane's weight, in pounds, at 4 months?

A   50

B   40

C   30

D   20

Go On

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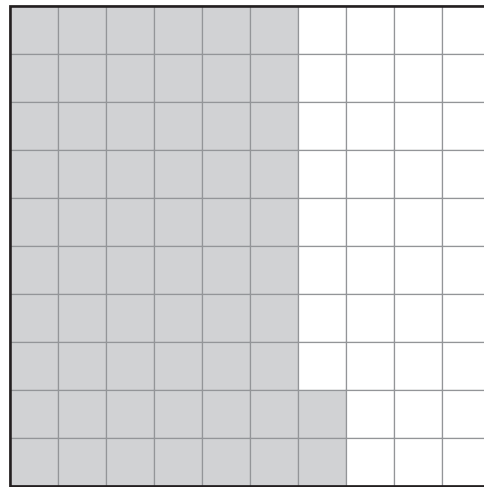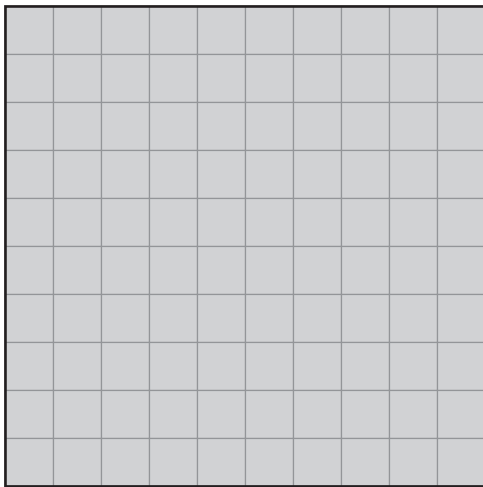until end of designated makeup schedule.

Book 1

Page 5

3 Which list of numbers shows all the factors of 36?

A 0, 1, 2, 3, 4, 6, 9, 12, 18

B 1, 2, 3, 4, 6, 9, 12, 18, 36

C 0, 1, 2, 3, 4, 6, 9, 12, 18, 36

D 1, 2, 3, 4, 6, 9, 12, 18, 36, 72

4 Each square on the grids below equals $0.01.

What is the total amount of money shown by the shaded squares on the grids?

A $0.38

B $0.62

C $1.38

D $1.62

5 Phillip's mathematics teacher drew a triangle that had a 60° angle and a 20° angle. What is the measure of the third angle in the triangle?

A   280°

B   100°

C   60°

D   10°

6 Ms. Seebert used 60% of the gas in her car's tank while driving over the weekend. Which number represents how much of the gas she used?

A   0.6

B $\dfrac{1}{6}$

C   0.06

D $\dfrac{1}{60}$

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Book 1

Page 7

7 The road sign below shows the distance to Crystal Falls.

Crystal Falls
12 kilometers
→

1 kilometer = 1,000 meters

How many meters is it to Crystal Falls?

A 12

B 120

C 1,200

D 12,000

8 In a can of mixed nuts, the ratio of cashews to peanuts is 2:5. Which fraction represents the ratio of cashews to peanuts?

A $\frac{2}{3}$

B $\frac{2}{5}$

C $\frac{2}{7}$

D $\frac{5}{2}$

9 Hamid buys 3 bags of marbles for his fish tank. The table below shows the weight of each bag of marbles.

HAMID'S MARBLES

Bag	Weight (in pounds)
A	4.6
B	5.9
C	4.7

Which expression shows the correct relationship of the weights of the 3 bags of marbles?

A $4.7 < 4.6 < 5.9$

B $5.9 < 4.7 < 4.6$

C $4.7 > 4.6 > 5.9$

D $5.9 > 4.7 > 4.6$

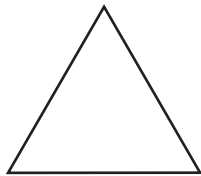**10** Deena learned the population of her town is 5,342. What is 5,342 rounded to the nearest hundred?

A 5,500

B 5,400

C 5,300

D 5,000

Go On

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Book 1

Page 9

11 What is the greatest common factor (GCF) of 9 and 36?

    A   3

    B   9

    C   18

    D   36

12 Which shape has **only** one pair of parallel sides?
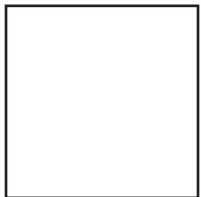
triangle

A
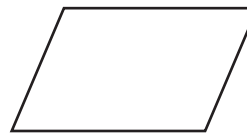
parallelogram

C

square

B

trapezoid

D

13 A history club goes on a field trip to a museum. If the price of a student ticket is $13.00, what is the total ticket cost for 24 students?

    A $312.00

    B $302.00

    C $96.00

    D $37.00

14 Bonnie and Saleem are playing a game where they earn points. The pattern below shows the number of points Bonnie has after each of the first five rounds of the game.

8, 16, 32, 64, 128, . . .

Which rule explains the pattern of Bonnie's points?

    A   Add 2.

    B   Add 8.

    C   Multiply by 2.

    D   Multiply by 8.

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Book 1

Page 11

15 The table below shows the populations of four different countries in the month of July 2004.

JULY 2004 POPULATIONS

Country	Population
Bulgaria	7,517,973
Chad	9,538,544
Liberia	3,390,635
Singapore	4,353,893

What is the value of the digit 9 in the **smallest** population listed in the table?

A   ninety

B   nine million

C   nine hundred

D   ninety thousand

16 Paula bought a rectangular picture frame. The frame is 20 inches wide and 24 inches long. What is the perimeter of the picture frame?

$P = (2 \times \text{length}) + (2 \times \text{width})$

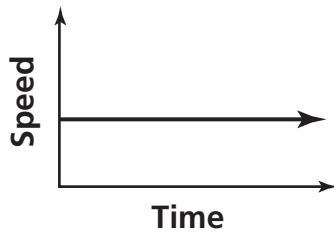A   40 inches

B   44 inches

C   48 inches

D   88 inches

17 Simplify the expression below.

$$3 + 7 \times (5 + 1) \div 3 - 2$$

A   11

B   13

C   15

D   18

18 Jackie is test-driving a new type of car. One of the performance tests is to increase the speed of the car quickly and then drive at a constant speed for a certain amount of time. Which line graph represents the speed of Jackie's car during the test?

A

C

B

D
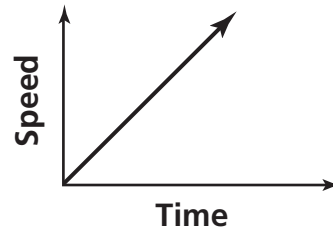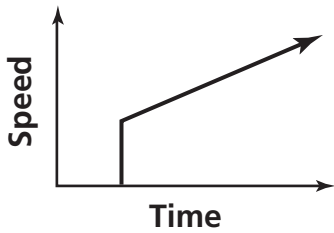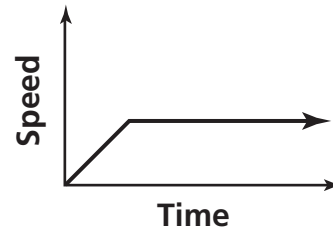
Go On

19 What mixed number equals $\frac{7}{4}$?

A $4\frac{3}{4}$

B $4\frac{1}{4}$

C $3\frac{1}{4}$

D $1\frac{3}{4}$

20 The list below shows the weights, in pounds, of five different kangaroos.

65, 75, 80, 85, 85

What is the mean (average) weight, in pounds, of the kangaroos?

A 78

B 80

C 85

D 88

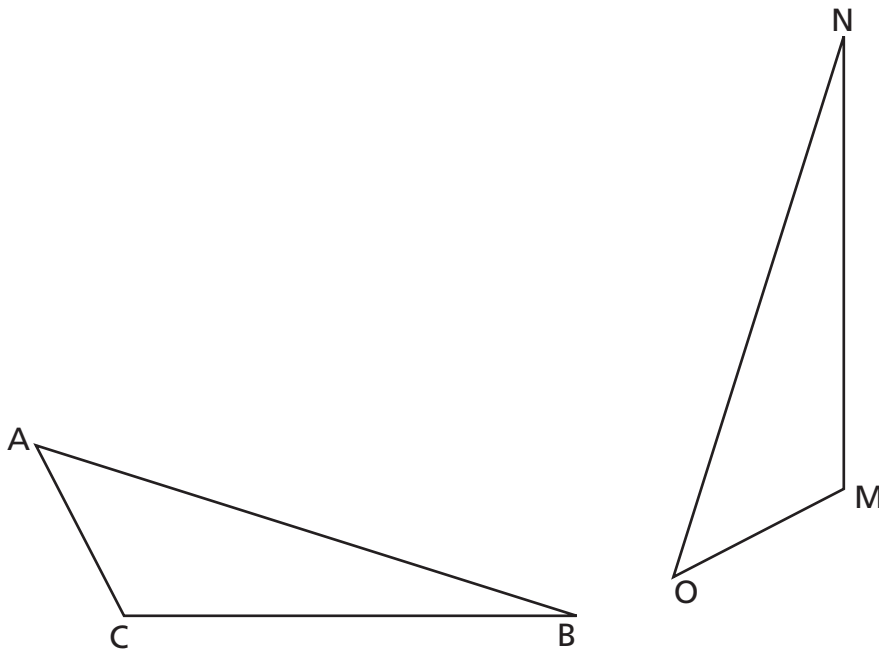**21** Julio is 4 feet 7 inches tall. How many inches tall is Julio?

A 36 inches

B 47 inches

C 55 inches

D 60 inches

22   The diagram below shows two congruent triangles.
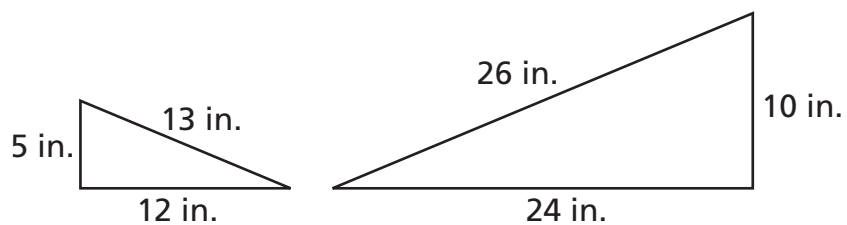

Which sides of the triangles are corresponding?

A   side CB and side ON

B   side BA and side MO

C   side AC and side OM

D   side AB and side MN

23   Kendra mowed $\frac{3}{5}$ of her back yard and then took a break. What decimal is equal to $\frac{3}{5}$?

A   0.6

B   0.06

C   0.4

D   0.04

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Book 1

Page 15

24 The diagram below shows two skateboard ramps. The ramps are similar triangles.

[not drawn to scale]

Which fraction represents the ratio of the measures of the smaller skateboard ramp to the measures of the larger skateboard ramp?
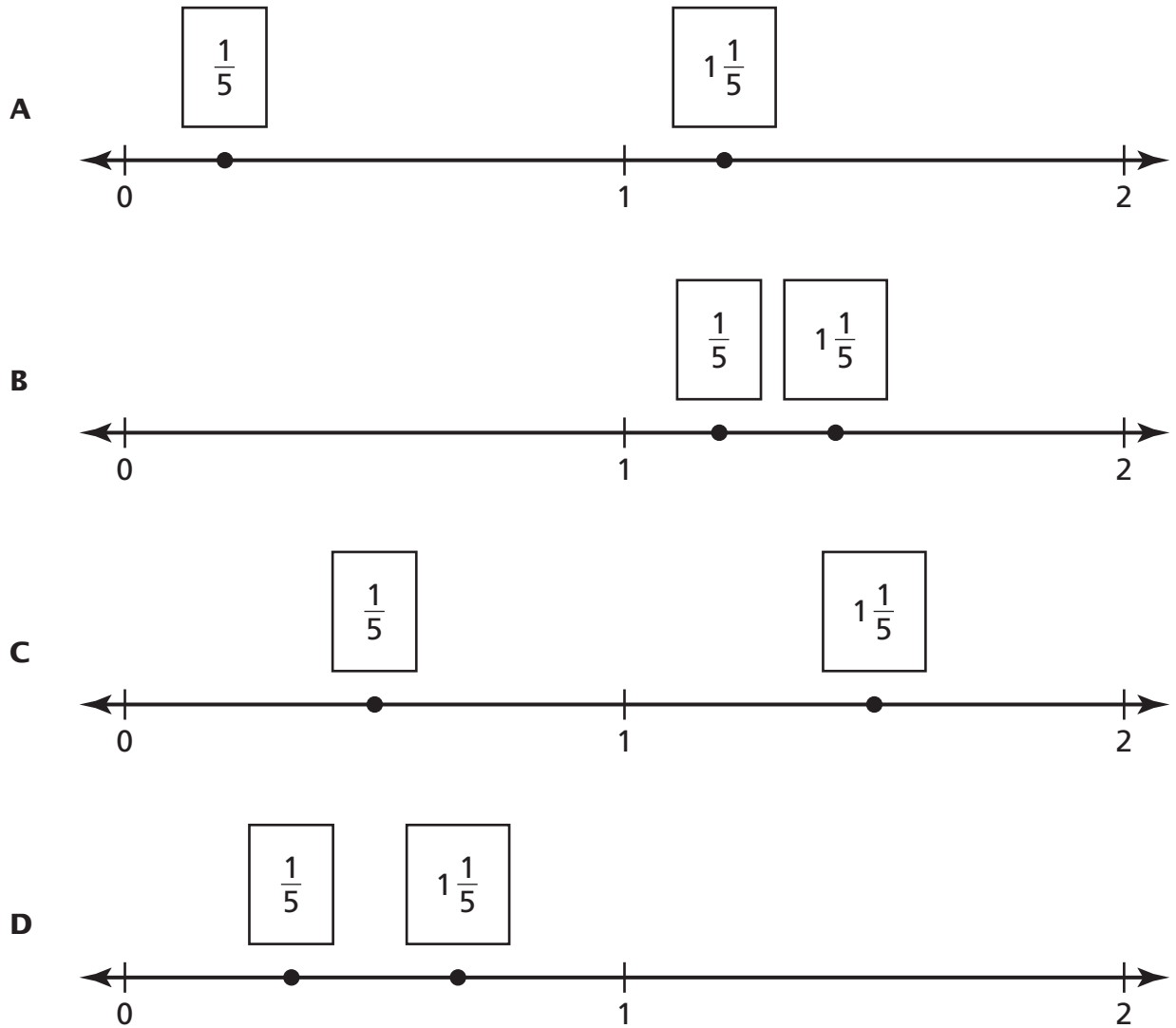
A $\frac{1}{2}$

B $\frac{1}{3}$

C $\frac{1}{4}$

D $\frac{1}{5}$

25 What is the least common multiple (LCM) of 8 and 10?

A 2

B 18

C 40

D 80

26 Devon is practicing writing fractions on a number line. Which number line shows the fractions in the correct locations?

A

$\frac{1}{5}$ $1\frac{1}{5}$

0   1   2

B

$\frac{1}{5}$ $1\frac{1}{5}$

0   1   2

C

$\frac{1}{5}$ $1\frac{1}{5}$

0   1   2

D

$\frac{1}{5}$ $1\frac{1}{5}$

0   1   2

STOP

Grade 5

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