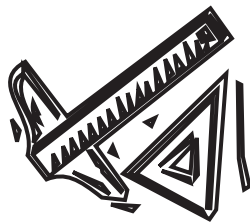




# *New York State Testing Program*

## Mathematics

### Book 1



Due to differences in computer equipment, graphic depictions (e.g., maps, diagrams, graphs) may not print according to scale.

The State Education Department provides schools with manipulatives in the form of a sheet of punch-out tools for students to use when taking the Grade 4 or 8 Mathematics Tests. For Grade 4, the tools are a ruler, counters, and pattern blocks. For Grade 8, the tools are a ruler and a protractor. Manipulatives are not included with this sample test because differences in computer equipment may prevent printing according to scale.

# Sample Test

 **CTB  
McGraw-Hill**

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## TIPS FOR TAKING THE TEST

Here are some suggestions to help you do your best:

- Be sure to carefully read all the directions in the Test Book.
- Ask your teacher to explain any directions you do not understand.
- You may use your tools to help you solve any problem on the test.
- Read each question carefully and think about the answer before writing a response.



This picture means that you will use your ruler.



This picture means that you will use your pattern blocks.



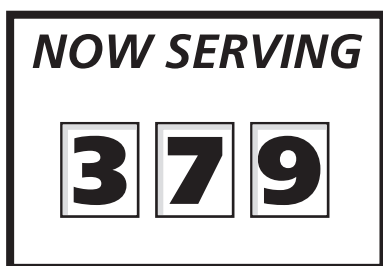
This picture means that you will use your counters.

## Sample A

$$\begin{array}{r} 227 \\ + 14 \\ \hline \end{array}$$

- A 311
- B 241
- C 231
- D 232

## Sample B



Which number will be served next?



**F**



**G**



**H**



**J**

**Go On**

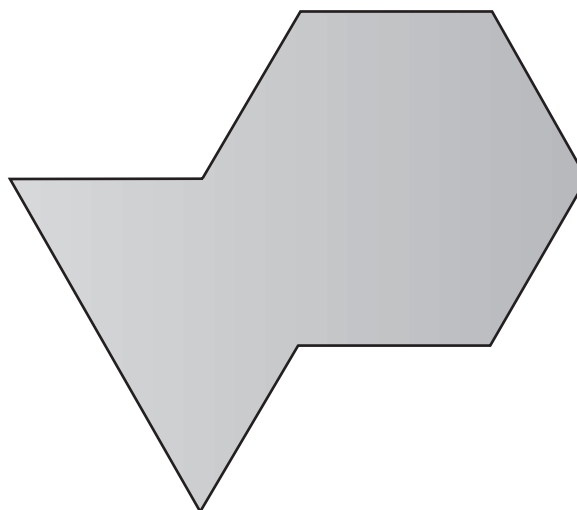
## Sample C



Use your pattern blocks to help you solve this problem.

How many of the green triangles would be needed to cover exactly  $\frac{2}{3}$  of the shape below?

- A** 1
- B** 3
- C** 6
- D** 9



**1**     23  
   × 6

- A** 29
- B** 128
- C** 138
- D** 139

**2**     585  
   - 66

- F** 419
- G** 519
- H** 521
- J** 529

**3** Ray bought 3 notebooks. Each notebook contained 90 sheets of paper. How many sheets of paper did Ray buy in all?

- A** 30
- B** 90
- C** 180
- D** 270

**4** Nina wants to buy a scooter that costs \$100. She has \$80 already. What percent of the \$100 does Nina already have?

- F** 0.8%
- G** 8%
- H** 80%
- J** 800%

**5** In the pattern below, which number belongs in the box?

5,  $4\frac{1}{2}$ , 4,  $3\frac{1}{2}$ ,

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

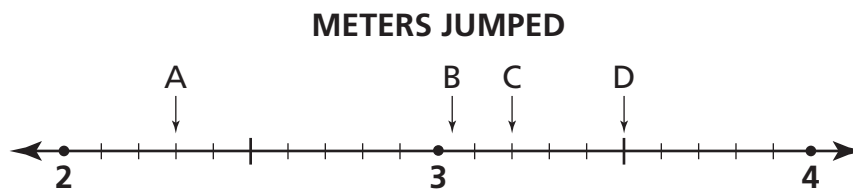
**6****Population of Rochester in 1998****216,887**

Which statement is true about the number 216,887 ?

- F** The value of the 1 is 100,000.
- G** There are 6 ten thousands.
- H** The digit in the thousands place is odd.
- J** The 2 is in the hundred thousands place.

**7**

Gretchen's class went to a track-and-field competition. Gretchen jumped 3.2 meters in the long-jump event.

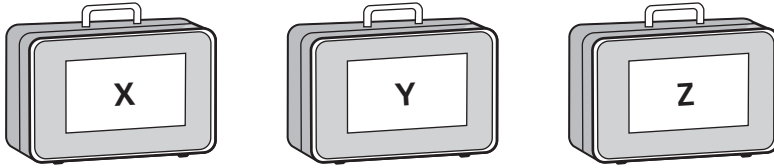


Which arrow on the number line points to the distance Gretchen jumped?

- A** A
- B** B
- C** C
- D** D

**Go On**

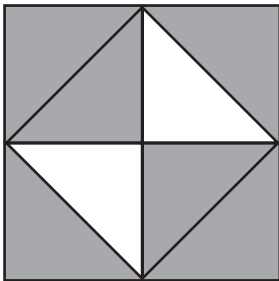
- 8** Gwen weighed 3 suitcases, shown below. She found that X weighs less than Y, and Y weighs less than Z.



Which statement *must* be true?

- F** X weighs more than Z.
- G** X weighs less than Z.
- H** X weighs the same as Z.
- J** X weighs half as much as Z.

- 9** What fraction of this large square is shaded?

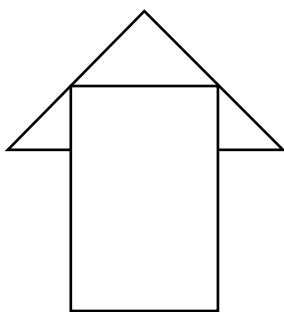


- A**  $\frac{4}{8}$
- B**  $\frac{5}{8}$
- C**  $\frac{6}{8}$
- D**  $\frac{7}{8}$

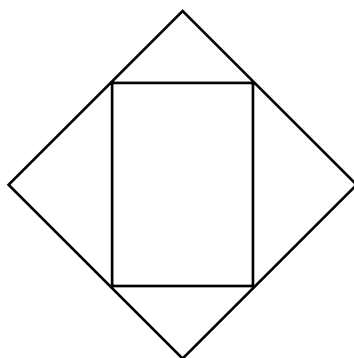
**10** Which measurement is most likely to be the length of a bicycle?

- F**  $1\frac{1}{2}$  millimeters
- G**  $1\frac{1}{2}$  centimeters
- H**  $1\frac{1}{2}$  meters
- J**  $1\frac{1}{2}$  kilometers

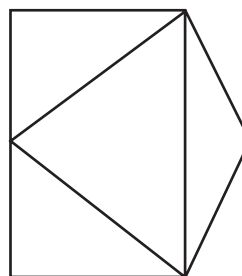
**11** Nathan made a drawing that has exactly 3 triangles and 1 rectangle. Which drawing below could be the one Nathan made?



**A**



**B**



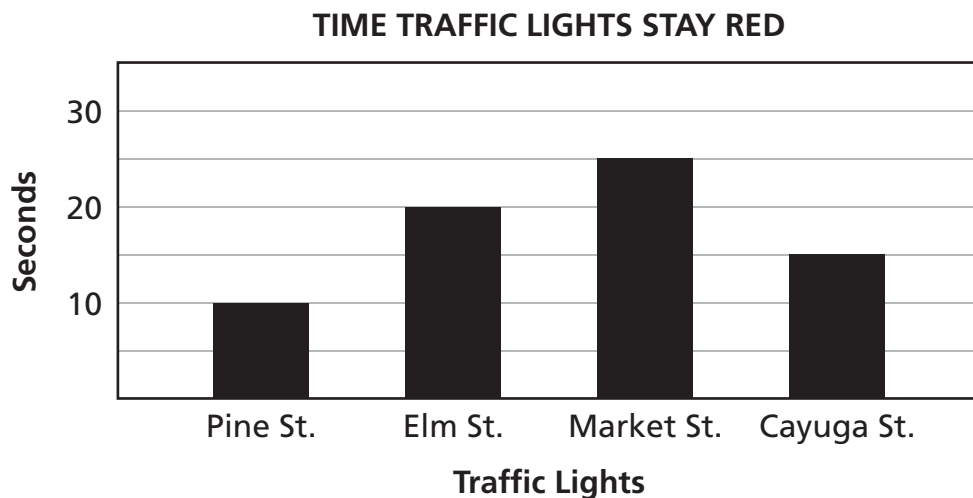
**C**



**D**

**12**

Paula timed how long some traffic lights stayed red before changing to green. The graph below shows how many seconds the traffic light at each cross street stayed red.



At which cross street is the traffic light red more than 10 seconds but less than 20 seconds?

- F** Pine St.
- G** Elm St.
- H** Market St.
- J** Cayuga St.

**13**

Malina wrote the following number sentence.

$$391 \div 17 = 23$$

Which expression can be used to find out if Malina's number sentence is correct?

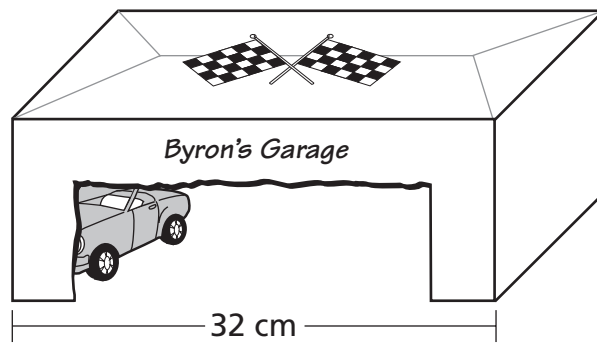
- A**  $23 + 17$
- B**  $23 - 17$
- C**  $23 \times 17$
- D**  $23 \div 17$



**16** Which expression is *not* the same as  $3 \times 5$  ?

- F**  $5 \times 3$
- G**  $5 \times 5 \times 5$
- H**  $5 + 5 + 5$
- J**  $3 + 3 + 3 + 3 + 3$

**17** Byron is making a garage for his toy cars out of a shoebox, as shown below. Each toy car is 5 centimeters wide.

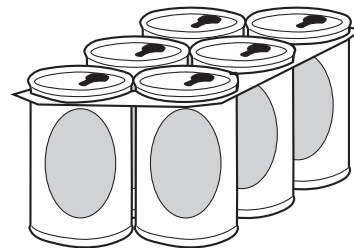


If all of the toy cars are parked in one row, side by side, what is the *greatest* number of toy cars Byron can fit in his garage?

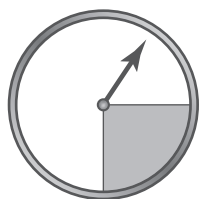
- A** 5
- B** 6
- C** 7
- D** 8

**18** Ms. Starr bought cans of soda packaged in groups of 6 cans each. If Ms. Starr bought only complete packages, how many cans could she have bought?

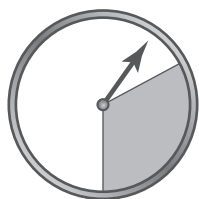
- F** 26
- G** 28
- H** 30
- J** 32



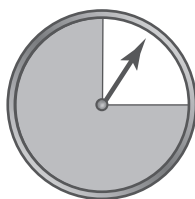
- 19** Four students are playing a game using the spinners below.



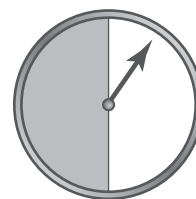
Joy's Spinner



Colin's Spinner



Desmond's Spinner



Yvonne's Spinner

Which spinner has a 1 out of 4 probability of landing on white?

- A** Joy's spinner
- B** Colin's spinner
- C** Desmond's spinner
- D** Yvonne's spinner

- 20**  Use your pattern blocks to help you solve this problem.

Which sentence is true about the size of the blue pattern block?

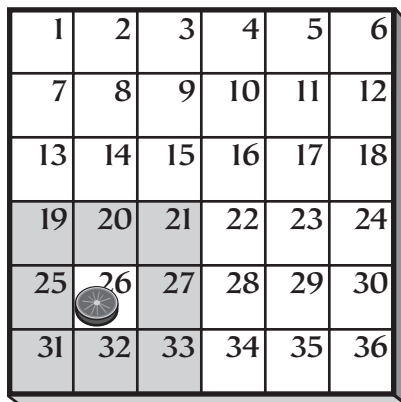
- F** The blue pattern block is  $\frac{1}{2}$  the size of the red pattern block.
- G** The blue pattern block is  $\frac{1}{3}$  the size of the red pattern block.
- H** The blue pattern block is  $\frac{1}{2}$  the size of the yellow pattern block.
- J** The blue pattern block is  $\frac{1}{3}$  the size of the yellow pattern block.

- 21** Mr. Wolga rode his bicycle 497 kilometers in 10 days. He rode an equal number of kilometers each day. About how many kilometers did Mr. Wolga ride each day?

- A** 30
- B** 40
- C** 50
- D** 60

- 22** Zack is playing a board game. On his next turn he can move his piece to any of the 8 shaded squares on the board shown below.

1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30
31	32	33	34	35	36



What are the chances that he will move his piece to an odd-numbered square?

- F** 2 out of 8  
**G** 3 out of 8  
**H** 4 out of 8  
**J** 6 out of 8
- 23** Which kind of numbers, when added together, will give you a total that is an odd number?
- A** even + even  
**B** even + even + even  
**C** odd + odd  
**D** odd + odd + odd
- 24** Monica has 2 erasers. She has 5 more pencils than erasers. She has 3 fewer markers than pencils. How many markers does Monica have?

- F** 2  
**G** 4  
**H** 6  
**J** 10

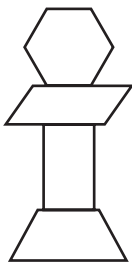
**25** A block has 2 red sides, 2 green sides, 1 blue side, and 1 yellow side. What is the probability that when the block is rolled it will land green side up?

- A**  $\frac{1}{5}$
- B**  $\frac{1}{6}$
- C**  $\frac{2}{5}$
- D**  $\frac{2}{6}$

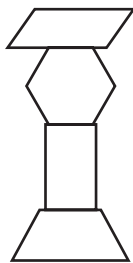
**26** Lee placed 4 shapes together on his desk. He put them in this order, from top to bottom:

hexagon  
trapezoid  
rectangle  
parallelogram

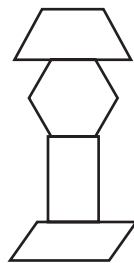
Which diagram shows the order of Lee's shapes?



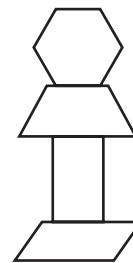
**F**



**G**



**H**



**J**

**27** Which number is *more* than  $\frac{1}{3}$ ?

- A**  $\frac{1}{2}$
- B**  $\frac{1}{4}$
- C**  $\frac{1}{6}$
- D**  $\frac{1}{8}$

**Go On**

**28** Every morning Julie collects the newly laid eggs from the chickens on her family's farm. She puts the eggs in cartons that hold 12 eggs each. On Monday, Julie collected 29 eggs. How many *more* eggs does she need to completely fill her last carton?

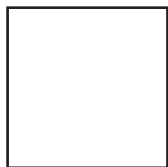
- F** 5
- G** 7
- H** 11
- J** 12

**29** Which number could be written in the box to make the number sentence below correct?

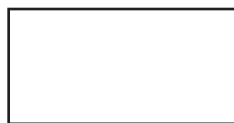
$$2 \times 10 > \square \times 5$$

- A** 3
- B** 4
- C** 5
- D** 6

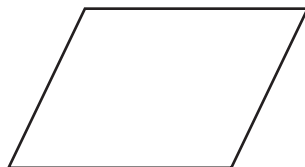
**30** Mayumi drew a shape with exactly 1 pair of parallel lines. Which shape did Mayumi draw?



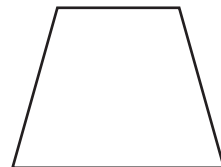
**F**



**G**



**H**



**J**

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**Book 1**  
**Mathematics**  
**Grade 4**

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