



New York State Testing Program

Mathematics Test Book 2

Grade **6**

March 9–13, 2009

Name _____



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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 writing your response.
- Be sure to show your work when asked. You may receive partial credit if you have shown your work.



This picture means that you will use your ruler.

Ms. Elma writes the expression below.

$$3 \times 3 \times 3 \times 3 \times 3 \times 3$$

She asks her sixth-grade students to rewrite the expression in exponential form. Marjorie writes the expression below.

$$6^3$$

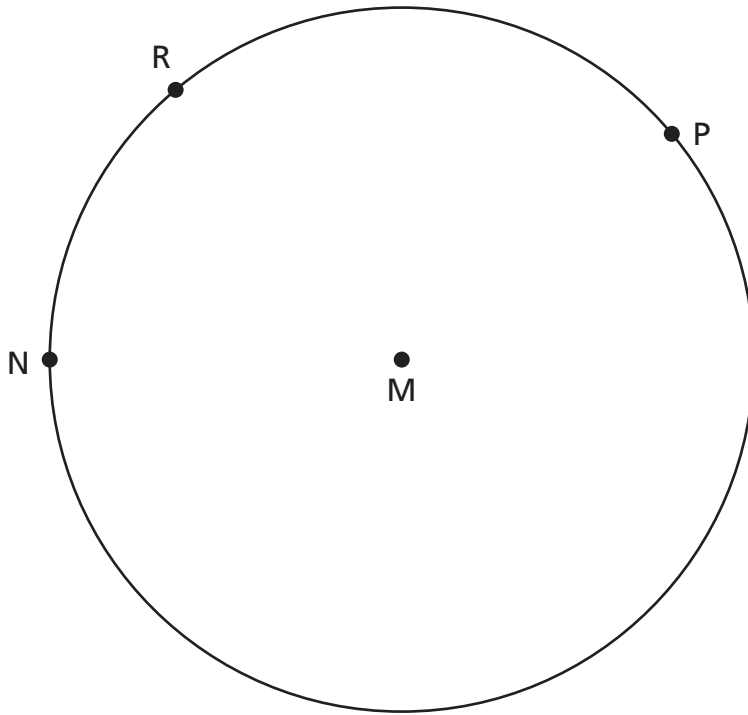
On the lines below, explain why Marjorie's answer is incorrect.

Be sure to correctly rewrite Ms. Elma's expression in exponential form.

Go On

27

The points N, R, and P are on the circle below. Point M is the center of the circle. Connect three points to form a central angle.



On the lines below, explain how you determined the three points that form a central angle.

28

Jenny picked 25 roses. She gave away 10 roses. What percent of the roses did Jenny give away?

Show your work.

Answer _____ %

29

What is the value of the expression $6m + 3^3$ when m equals 7?

Show your work.

Answer _____

Go On

30

Cruz has collected some marbles. The colors of the marbles are listed below.

- 8 red marbles
- 2 blue marbles
- 7 yellow marbles
- 3 green marbles

Cruz mixes all the marbles in a bag and then turns the bag upside-down so that only one marble falls out at a time. What is the probability that the **first** marble to fall out will be a blue marble?

Answer _____

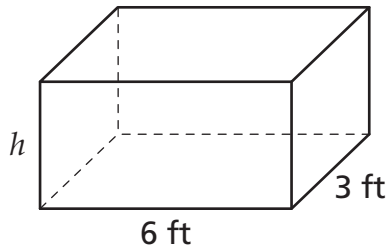
What is the probability that the **first** marble to fall out will be red, yellow, or green?

Show your work.

Answer _____

31

A shipping company uses large crates to ship certain items. A diagram of one of the crates is shown below.



[not drawn to scale]

$$V = lwh$$

The volume of the crate is 72 cubic feet. What is the height, in feet, of the crate?

Show your work.

Answer _____ feet

Go On

Complete the equation below to demonstrate the commutative property of addition.

$$2 + 3 = \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$$

On the lines below, explain how the completed equation demonstrates the commutative property of addition.

Rewrite the expression below to demonstrate the associative property of multiplication.

$$2 \times (3 \times 5)$$

Answer _____

33

Mr. Roberts is going shopping. He has a budget of \$150.00. He will buy **either** a painting **or** a lamp.

If he spends 80% of his money on a painting, how much money will Mr. Roberts spend?

Show your work.

Answer \$ _____

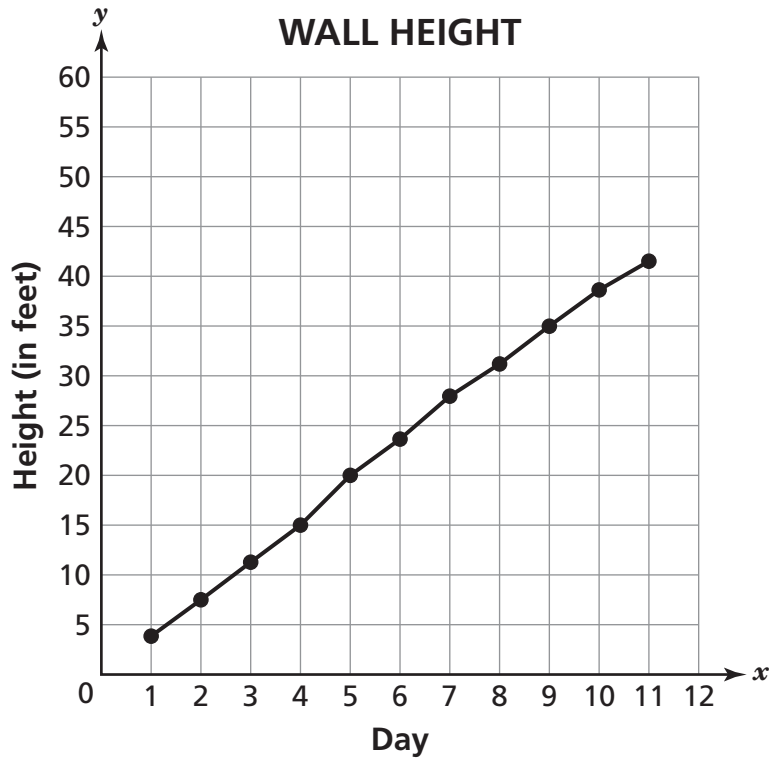
If he spends 50% of his money on a lamp, instead of buying a painting, how much money will Mr. Roberts spend?

Answer \$ _____

Go On

34

Rudy is building a wall beside his garden. He records the height of the wall at the end of each day during an 11-day period. His data is shown in the line graph below.



According to the data in the graph, what was the height of the wall at the end of Day 4?

Answer _____ feet

Based on the data in the graph, predict the height of the wall at the end of Day 12.

Prediction _____ feet

On the lines below, explain how you determined your prediction.

Go On

35

Donnie is autographing baseball items.

He has a total of 320 baseball cards to sign. He has signed 14 cards so far. The equation below can be used to determine the number of baseball cards, c , Donnie still needs to sign.

$$14 + c = 320$$

What is the number of baseball cards Donnie still needs to sign?

Show your work.

Answer _____ baseball cards

He also signs 300 baseballs, which are stored in 15 boxes. Donnie uses the equation below to determine the number of baseballs, b , in each box.

$$15b = 300$$

How many baseballs are in each box?

Answer _____ baseballs

STOP

Place Student Label Here



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