New York State Testing Program

Mathematics
Book 2

Grade **6**

March 13–17, 2006

Name _____

47950

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 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.

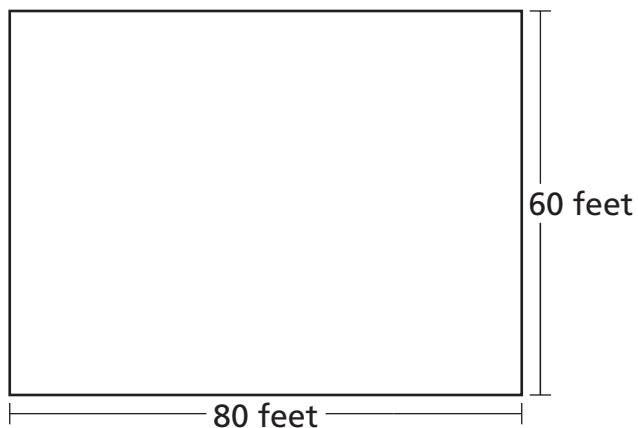This picture means that you will use your protractor.

■ **SECURE MATERIAL** ■
Do not reproduce. Do not discuss contents
until end of designated makeup schedule.

Book 2

Page 1

26 A diagram of Mr. Hill's yard is shown below.

MR. HILL'S YARD

```
┌────────────────────────┐
│                        │
│                        │  60 feet
│                        │
└────────────────────────┘
     ├─── 80 feet ───┤
```

[not drawn to scale]

Mr. Hill wants to plant grass seed in his yard. He needs to know how much seed he should buy. What is the area of Mr. Hill's yard?

Answer _____ square feet

On the lines below, explain your answer.

_____

_____

_____

Go On

■ SECURE MATERIAL ■
Do not reproduce. Do not discuss contents
until end of designated makeup schedule.
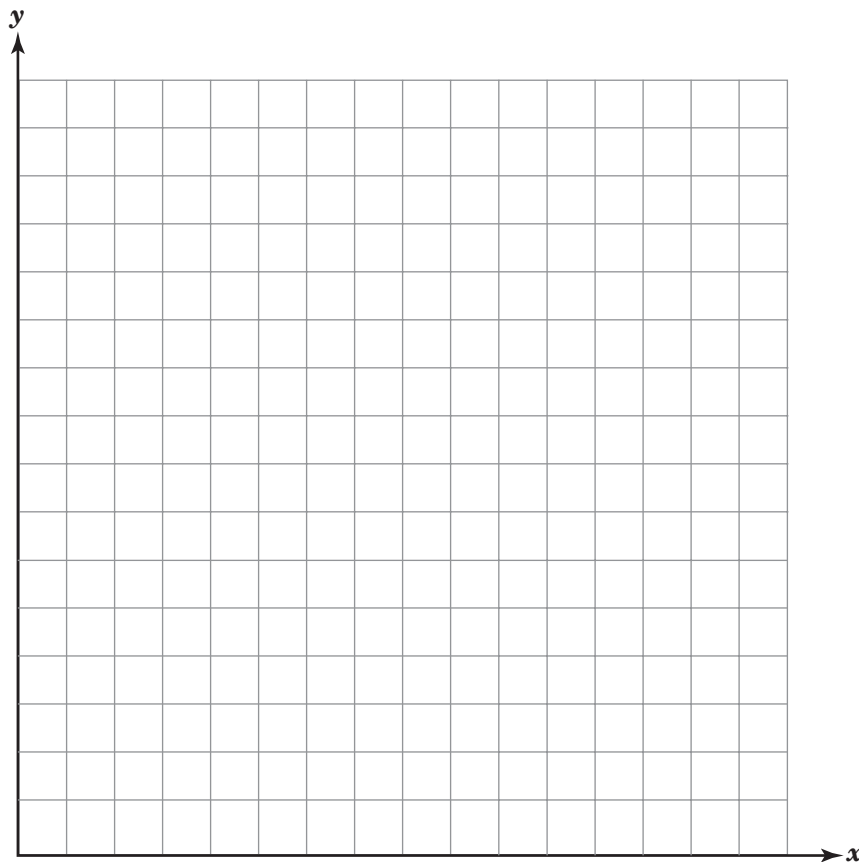
Book 2

Page 3

27 In Ms. Fletcher's class, 7 of the 20 students attend an after school art program. What percent of the students attend the after school art program?

Show your work.

Answer _____ %

28

Part A

On the grid below, draw a rectangle with a perimeter of 34 units.
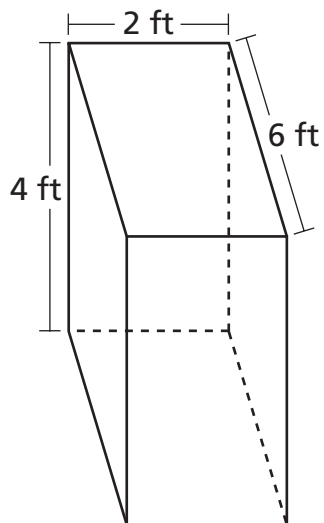

Part B

What are the lengths of each side of the rectangle?

Answer _____ units

Go On

■ SECURE MATERIAL ■
Do not reproduce. Do not discuss contents
until end of designated makeup schedule.

Book 2

Page 5

29 Mia puts pictures into a box like the one shown below.

[not drawn to scale]

Part A

What is the volume of the box? Use the formula *V = lwh*.

Show your work.

Answer _____ cubic feet

Part B

If the height of the box is doubled, what will be the volume of the new box?

Answer _____ cubic feet

On the lines below, explain how you found your answer.

_____

_____

_____

_____

_____

Go On

■ SECURE MATERIAL ■
Do not reproduce. Do not discuss contents
until end of designated makeup schedule.

Book 2

Page 7

30 Solve the equation below for *r*.

$$r - 9 = 16$$

Show your work.

Answer *r* = _____

31 On Friday, Lewis saw a certain number of hummingbirds, *h*. On Saturday, he saw 3 more than twice the number of hummingbirds he saw on Friday.

Write an expression for the number of hummingbirds Lewis saw on Saturday.

Expression _____

32 Avery is comparing two expressions. The first expression is 8^3. The second expression is 3^5. Which expression is greater?

Show your work.

Answer _____

Go On

■ SECURE MATERIAL ■
Do not reproduce. Do not discuss contents
until end of designated makeup schedule.

Book 2

Page **9**

33 At Anthony's school, 25% of the 72 sixth-grade students wear either glasses or contact lenses.

Part A

How many sixth-grade students wear either glasses or contact lenses?

Show your work.

Answer _____ students

Part B

There are 9 students who wear glasses. Of the students who wear glasses or contact lenses, what percent wear glasses?

Show your work.

Answer _____ %

34   Kyle has a container that holds 60 paperclips. Half of the paperclips are metal. The other half are colored plastic: 10 red, 10 green, and 10 blue.

Part A

If Kyle randomly takes a paperclip out of the container, what is the probability that the paperclip will be colored plastic?

Probability _____

Part B

If Kyle randomly takes a paperclip out of the container, what is the probability that the paperclip will be red or green?

Probability _____

On the lines below, explain your answer.

_____

_____

_____

_____

_____

Go On

■ SECURE MATERIAL ■
Do not reproduce. Do not discuss contents
until end of designated makeup schedule.

Book 2

Page 11

35 Frank's grocery bill is $40.43. After Frank uses some coupons, the bill is $30.35.

Part A

By rounding to the nearest dollar, **estimate** the amount of money Frank saved.

Answer $ _____

Part B

What is the approximate percent that Frank saved on his grocery bill?

Show your work.

Answer _____%

STOP

Book 2

Place Student Label Here

Grade 6
Mathematics
Book 2
March 13–17, 2006