

13 Family Letter**Dear Parent or Guardian:**

We use math skills in many of the things that we do. One of the goals of this class is to show students how things they are learning in the classroom are relevant to the real world. For example, understanding the Pythagorean Theorem and surface area geography, navigation, sports, and architecture.

In **Chapter 13, Extending Geometry and Measurement**, your child will learn how to find squares and square roots, use the Pythagorean Theorem, and find surface areas of rectangular prisms and cylinders. In the study of this chapter, your child will complete a variety of daily classroom assignments and activities and possibly produce a chapter project.

By signing this letter and returning it with your child, you agree to encourage your child by getting involved. Enclosed is an activity you can do with your child that practices how the math in Chapter 13 might be tested. You may also wish to log on to **www.msmath2.com** for self-check quizzes and other study help. If you have any questions or comments, feel free to contact me at school.

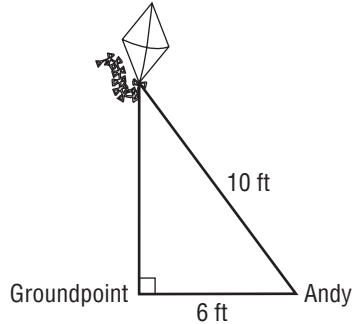
Sincerely,

Signature of Parent or Guardian _____ Date _____

13**Family Activity**
State Test Practice

Fold the page along the dashed line. Work each problem on another piece of paper. Then unfold the page to check your work.

1. Andy is flying a kite as shown in the diagram.



What is the height of the kite?

- A 4 feet
B 8 feet
C 12 feet
D 16 feet

Fold here.

Solution

1. *Hint: The Pythagorean Theorem states that the sum of the squares of the legs of a right triangle is equal to the square of the hypotenuse, or $a^2 + b^2 = c^2$.*

The height of the kite is a leg of a right triangle.

$$h^2 + 6^2 = 10^2$$

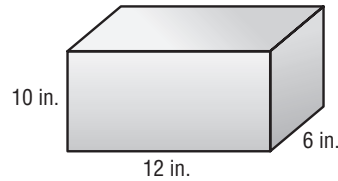
$$h^2 + 36 = 100$$

$$h^2 = 64$$

$$h = 8$$

The answer is **A**.

2. Polly is painting all sides of the wooden block shown below as the first step in an art project.



Which of the following will help her calculate how much paint to buy?

- A the volume; 720 cubic inches
B the surface area; 504 square inches
C adding the perimeter of each face; 224 inches
D the sum of the edges; 112 inches

Solution

2. The paint will cover all of the outside surfaces of the box. The measurement that corresponds with the area of all of the faces is the surface area, which is calculated by adding the areas of all of the faces.

The answer is **B**.