Name _____ Date_____ Pd _____

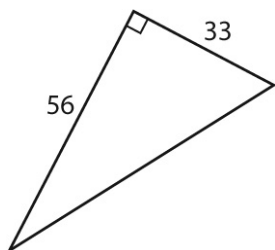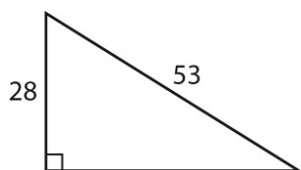**The Pythagorean Theorem**

Study Guide

1. What is the length of the hypotenuse of the triangle below?

A 23   C 65

B 45.2   D 89

2. What is the missing side length in the triangle below? Round to the nearest tenth.

_____

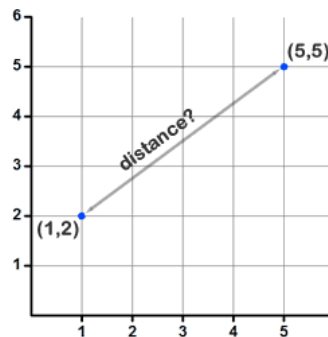3. Which set of three numbers can be used to make a right triangle?

A 39, 41, 45

B 39, 49, 59

C 39, 69, 99

D 39, 80, 89

4. A right triangle has legs of 15 centimeters and 22 centimeters. What is the length of the hypotenuse to the nearest tenth of a centimeter?

_____

5. What is the distance between (4, 7) and (-2, 8)? Use the distance formula:

$$d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

_____

6. What is the distance between the following 2 points?

_____

7. A diagonal shortcut across an empty rectangular lot is 97 feet. The lot is 72 feet long. What is the width of the lot?

A 65 feet   C 120.8 feet

B 84.5 feet   D 169 feet