Geometry **Name: _____**
Pythagorean Theorem

NOTES:

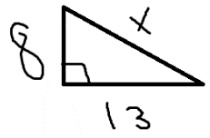
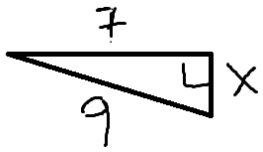
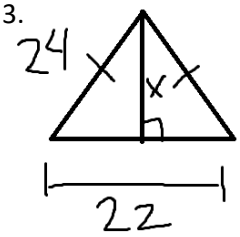
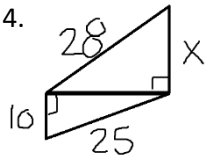
Pythagorean Theorem is used to find missing _____ of _____ triangles.

Sides a and b are called the _____

Side c is the _____ (always opposite the right angle)

For any right triangle: _____

Find the value of x for the following. Round answers to the nearest tenth.

1. 	2. 
3. 	4. 
5. A 31ft support wire is attached from the top of a 25ft telephone pole to a point on the ground. How far from the base of the pole does the wire meet the ground?	

Converse of the Pythagorean Theorem:

- If $c^2 = a^2 + b^2$, the triangle is _____.
- If $c^2 > a^2 + b^2$, the triangle is _____.
- If $c^2 < a^2 + b^2$, the triangle is _____.

A triangle is formed if the _____ of the two _____ sides is _____ than the largest side.

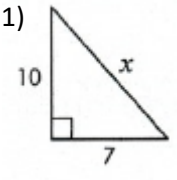
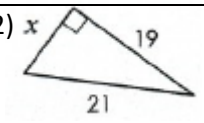
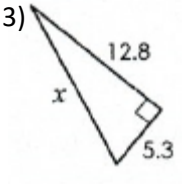
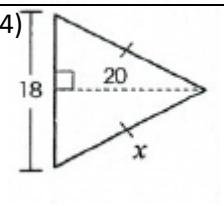
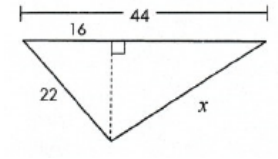
Determine if the 3 sides can form a triangle, then classify the triangle as acute, right, or obtuse.

1) 3, 7, 9	2) 8, 15, 23	3) 17, 17, 22

Geometry **Name: _____**
Pythagorean Theorem

HOMEWORK ASSIGNMENT

Find the value of *x*, round to the nearest tenth if necessary.

1) 	2) 	3) 
4) 	5) 	
7) A 35ft wire is secured from the top of a flagpole to a stake in the ground. If the stake is 14ft from the base of the flagpole, how tall is the flagpole?		
Given the side lengths, determine if they form a triangle. Then, classify the triangle as acute, right, or obtuse.		
8) 15, 16, 21	9) 20, 23, 41	10) 10, 24, 26
11) 6, 13, 20	12) 3, 16, 17	13) 24, 29, 32