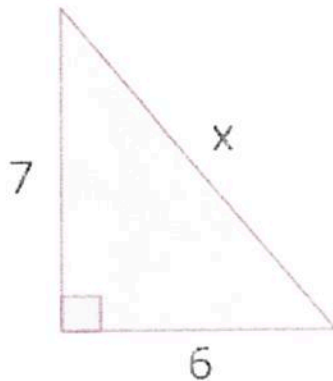Name_____**KEY**_____

Instructions: Show all work. Partial credit can only be given where work is shown. Be sure to answer all parts of each question. You may not use a calculator on this quiz.

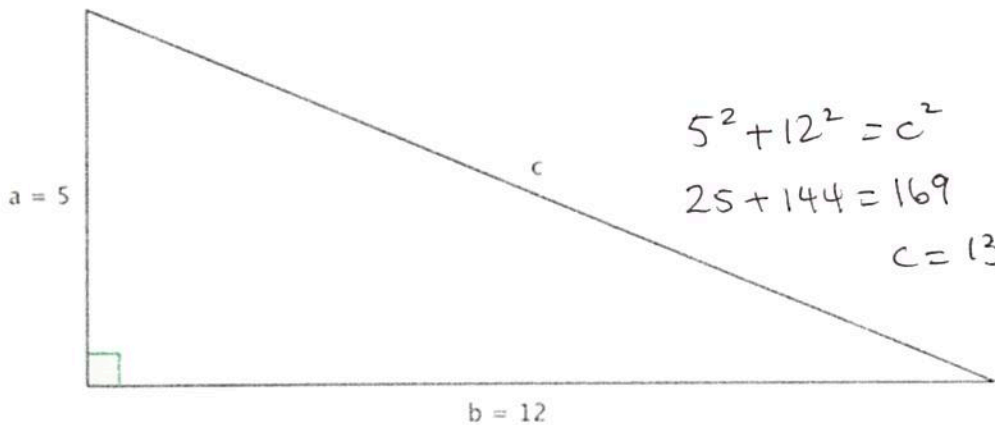1. Solve for the missing side using the Pythagorean Theorem.

$$6^2 + 7^2 = c^2$$
$$36 + 49 = 85$$
$$c = \sqrt{85}$$

a.

$$5^2 + 12^2 = c^2$$
$$25 + 144 = 169$$
$$c = 13$$

b.

2. A Pythagorean Triple is a set of three integers that satisfies the equation $a^2 + b^2 = c^2$. List three examples of Pythagorean Triples and show that they satisfy the equation.

$3 - 4 - 5$ $3^2 + 4^2 = 5^2$
                              $9 + 16 = 25$

$5 - 12 - 13$ See above

$8 - 15 - 17$ $8^2 + 15^2 = 17^2$
                              $64 + 225 = 289$

Or any multiples of these
there are other options also