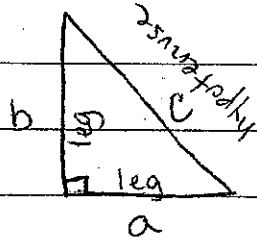


# Pythagorean Theorem

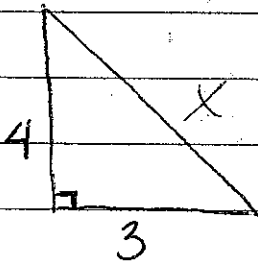
- Right triangles only



$$a^2 + b^2 = c^2$$

↑            ↑            ↑  
 leg        leg        hypotenuse

- the hypotenuse is always across from the right angle ( $c^2$ )



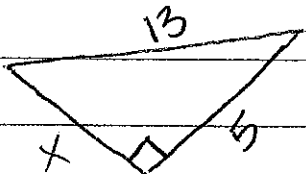
$$3^2 + 4^2 = c^2$$

$$9 + 16 = c^2$$

$$\sqrt{25} = \sqrt{c^2}$$

$$5 = c$$

\*the inverse of  $x^2$  is the square root of. ( $\sqrt{\quad}$ )



$$x^2 + 5^2 = 13^2$$

$$x^2 + 25 = 169$$

$$-25 \quad -25$$

$$\sqrt{x^2} = \sqrt{144}$$

$$x = 12$$

\*follow steps to solve equations

