

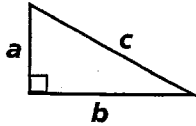
Name \_\_\_\_\_

# The Pythagorean Theorem

## Remember

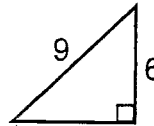
In a right triangle, the sum of the squares of the legs is equal to the square of the hypotenuse:

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



### Example:

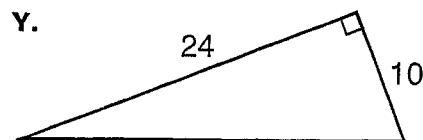
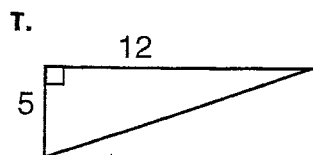
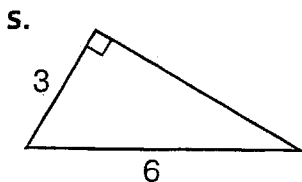
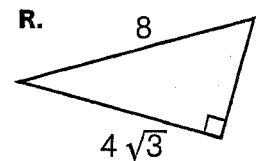
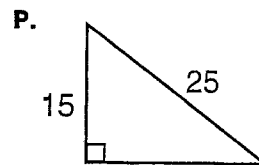
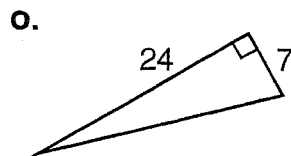
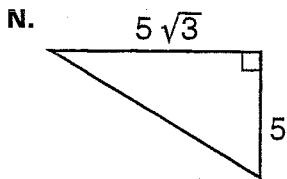
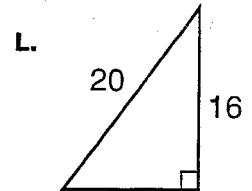
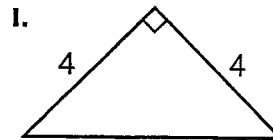
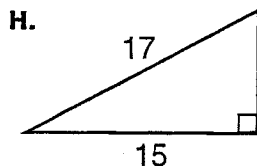
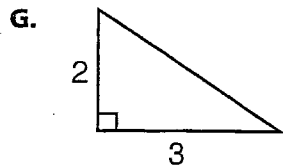
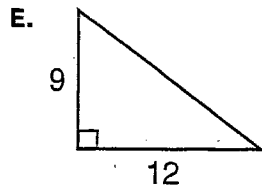
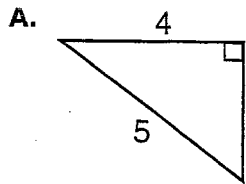
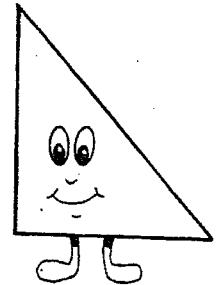
Find the length of the missing side.



$$\begin{aligned} 9^2 &= 6^2 + b^2 \\ 81 &= 36 + b^2 \\ 45 &= b^2 \\ \sqrt{45} &= b \\ \sqrt{9} \cdot \sqrt{5} &= b \\ 3\sqrt{5} &= b \end{aligned}$$

Solve for the missing side. Use the answer code to find the special name for three integers whose lengths form a right triangle.

**TIP!** A 3-4-5 triangle has a leg-to-leg-to-hypotenuse ratio of 3:4:5. If you can spot multiples of these numbers, you can solve those problems easily.



20 26 13 8 3  $\sqrt{13}$  25 4 15 3 10

13 4  $4\sqrt{2}$  20 12 15  $3\sqrt{3}$