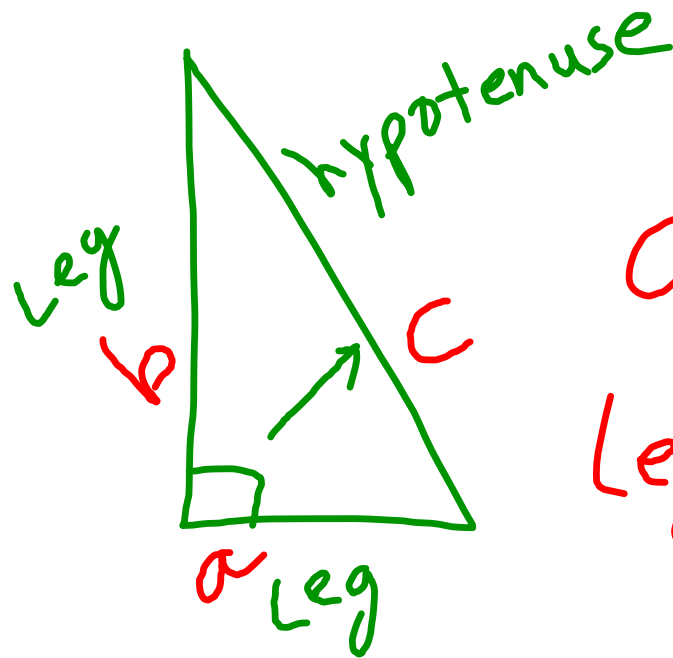
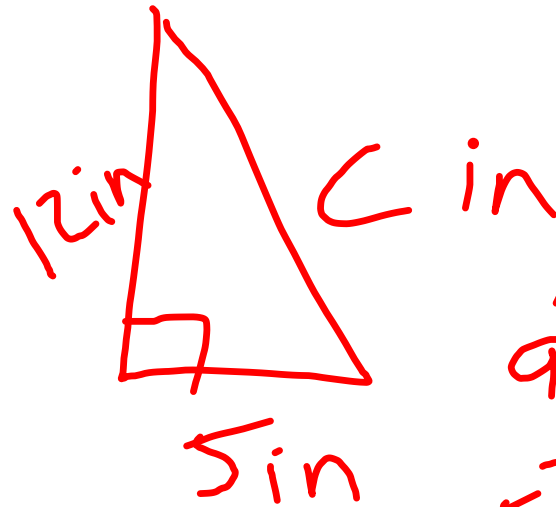


10.3 The Pythagorean Theorem



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

$$\text{Leg}^2 + \text{Leg}^2 = \text{hypotenuse}^2$$



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

$$5^2 + 12^2 = c^2$$

$$25 + 144 = c^2$$

$$\sqrt{169} = \sqrt{c^2}$$

$$13_{in} = c$$

$$a: 8m \quad b: ? \quad c: 17m$$

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

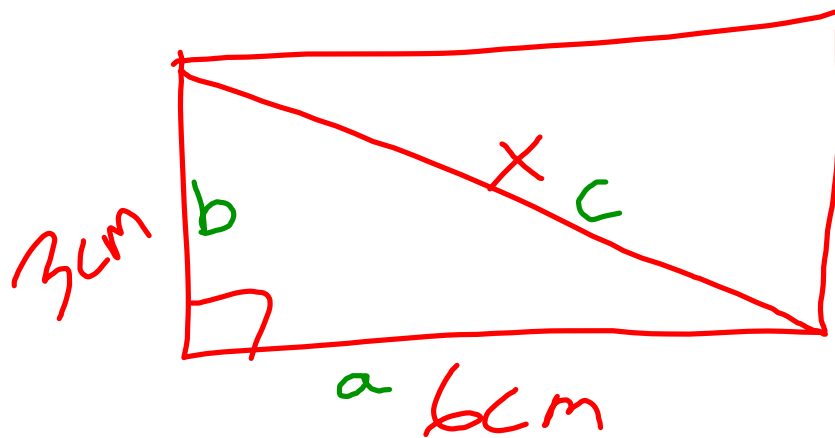
$$8^2 + b^2 = 17^2$$

$$64 + b^2 = 289$$

$$\begin{array}{r} -64 \\ \hline \end{array} \quad \begin{array}{r} -64 \\ \hline \end{array}$$

$$\sqrt{b^2} = \sqrt{225}$$

$$b = 15m$$



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

$$6^2 + 3^2 = x^2$$

$$36 + 9 = x^2$$

$$\sqrt{45} = \sqrt{x^2}$$

$$6.7082 = x$$

$$6.7\text{cm} = x$$

Nearest
Tenth

P. 421-422

4-28

even