

Pythagorean Theorem Jan 5/16



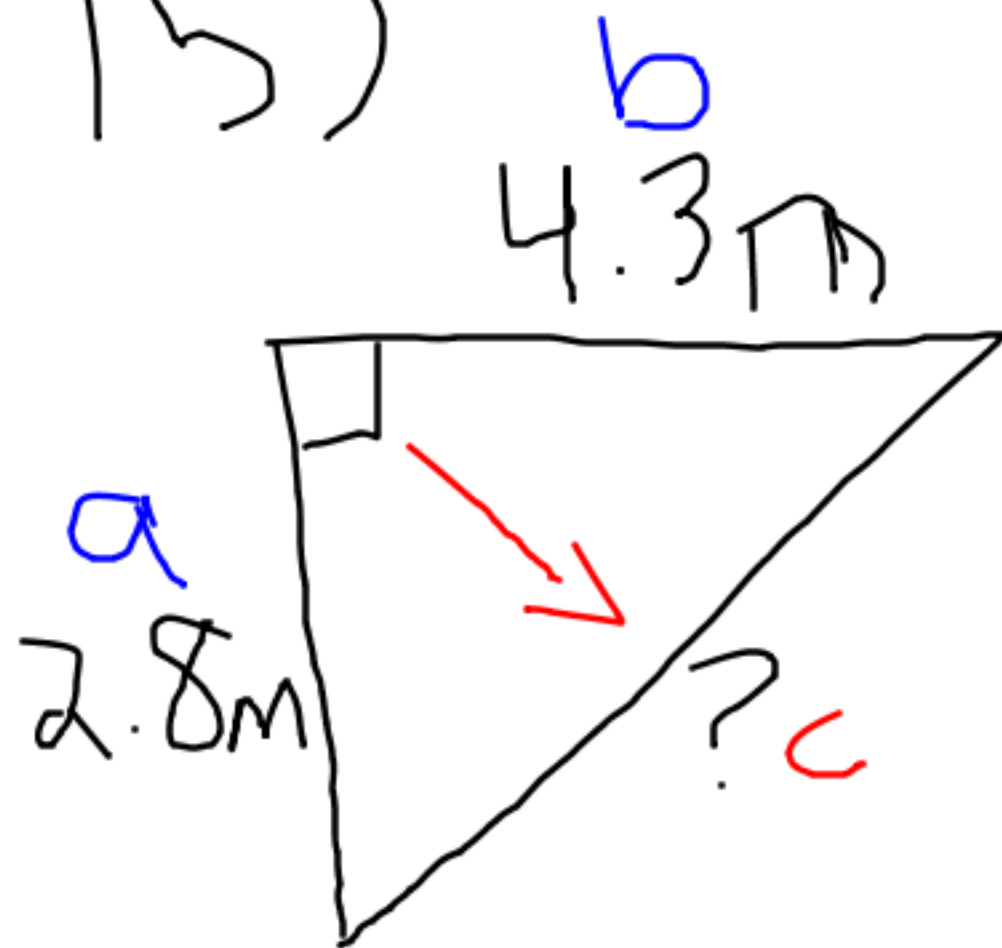
→ right angle triangle

$$\rightarrow a^2 + b^2 = \boxed{c^2}$$

$c \Rightarrow$ hypotenuse

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15)



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

$$2.8^2 + 4.3^2 = c^2$$

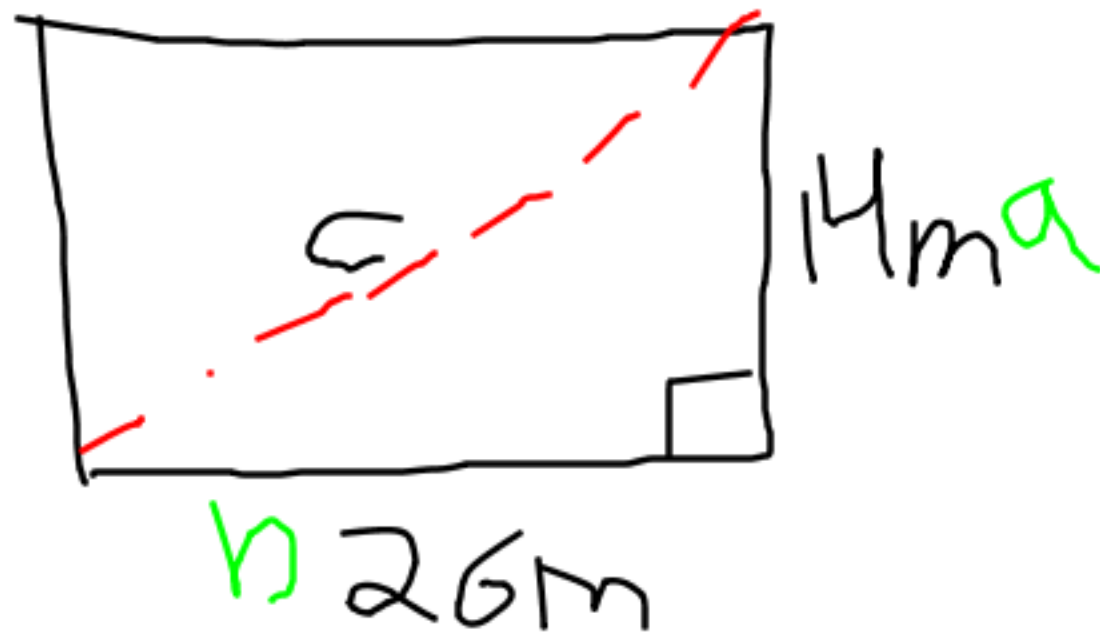
$$7.84 + 18.49 = c^2$$

$$\sqrt{26.33} = \sqrt{c^2}$$

$$5.131 = c$$

$$5.1m \approx c$$

29) Given



Find $\rightarrow$ length of
the diagonal

Let $\rightarrow c = \text{length}$
of diagonal

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

$$14^2 + 26^2 = c^2$$

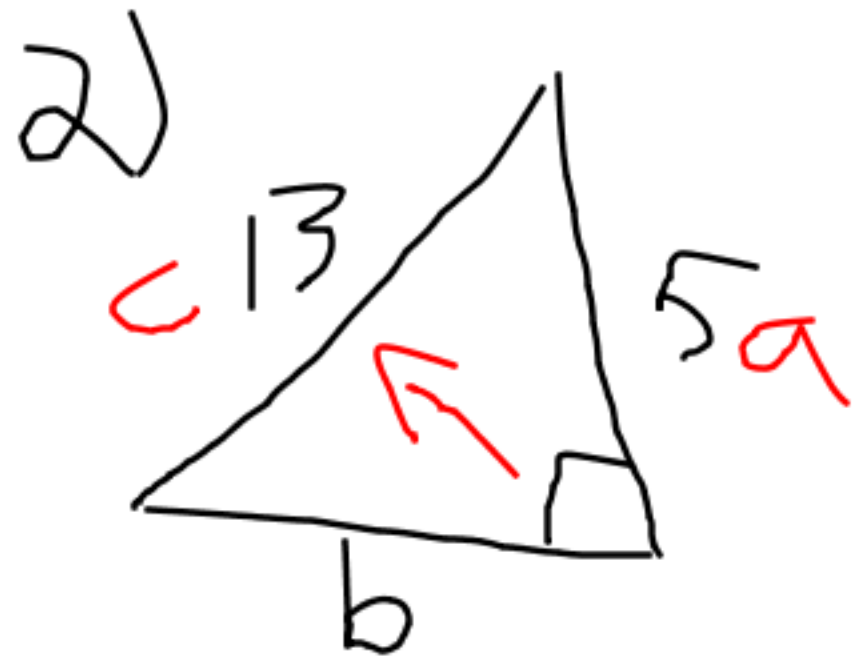
$$196 + 676 = c^2$$

$$\sqrt{872} = \sqrt{c^2}$$

$$29.5 = c$$

$\therefore$ The length of
the diagonal is
29.5m.

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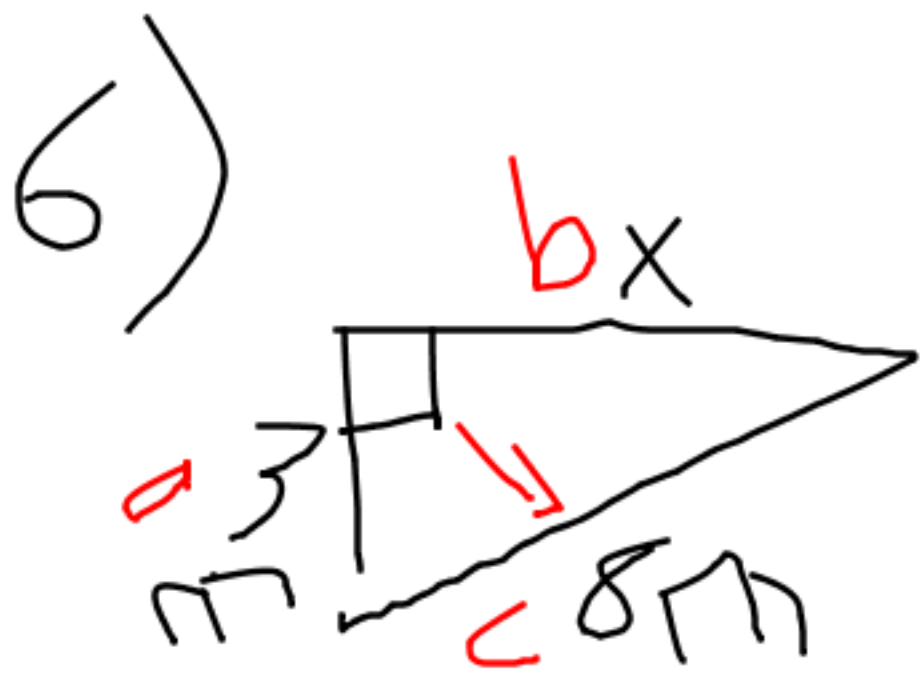
$$a^2 + b^2 = c^2$$

$$5^2 + b^2 = 13^2$$

$$\cancel{25} + b^2 = 169 - 25$$

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

$$b = 12$$



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

$$3^2 + x^2 = 8^2$$

$$-9 \quad 9 + x^2 = 64 - 9$$

$$\sqrt{x^2} = \sqrt{55}$$

$$x = 7.4\text{m}$$

hw

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→ pg

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→ Handout