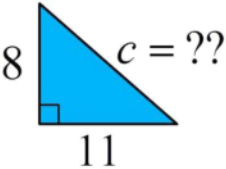
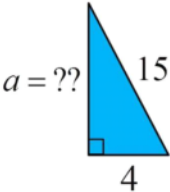
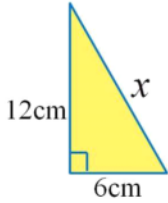
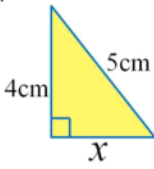
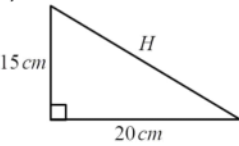
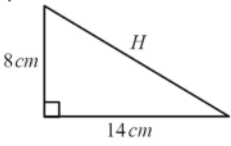
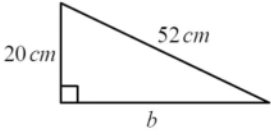
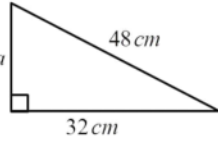
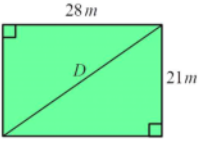


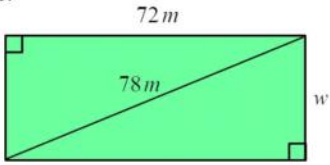
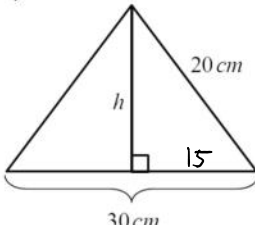
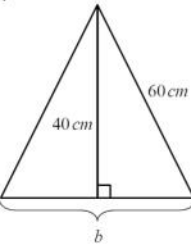
Name: Ashley

Date: _____

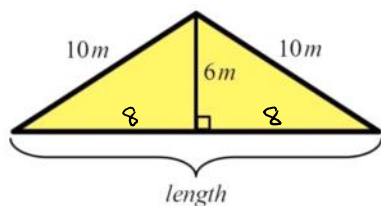
Math 8 Section 7.4 What is the Pythagorean Theorem:

1. Use the Pythagorean Theorem to find the length of the missing sides to 2 decimal places.

a)  $8^2 + 11^2 = c^2$ $64 + 121 = c^2$ $185 = c^2$ $\sqrt{185} = c$	b)  $15^2 - 4^2 = a^2$ $225 - 16 = a^2$ $209 = a^2$ $\sqrt{209} = a$	c)  $12^2 + 6^2 = x^2$ $144 + 36 = x^2$ $180 = x^2$ $\sqrt{180} = x$
d)  $5^2 - 4^2 = x^2$ $25 - 16 = x^2$ $9 = x^2$	e)  $15^2 + 20^2 = H^2$ $225 + 400 = H^2$ $625 = H^2$ $25 = H$	f)  $14^2 + 8^2 = H^2$ $196 + 64 = H^2$ $260 = H^2$ $\sqrt{260} = H$
g)  $52^2 - 20^2 = b^2$ $2704 - 400 = b^2$ $2304 = b^2$ $48 = b$	h)  $48^2 - 32^2 = a^2$ $2304 - 1024 = a^2$ $1280 = a^2$ $\sqrt{1280} = a$	i)  $28^2 + 21^2 = D^2$ $784 + 441 = D^2$ $1225 = D^2$ $35 = D$

j)  $w^2 = 78^2 - 72^2$ $w^2 = 6084 - 5184$ $w^2 = 900$ $w = 30$	k)  $h^2 = 20^2 - 15^2$ $h^2 = 400 - 225$ $h^2 = 175$ $h = \sqrt{175}$	l)  $b^2 = 60^2 - 40^2$ $b^2 = 3600 - 1600$ $b^2 = 2000$ $b = \sqrt{2000} \times 2$
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2. The dimensions of a roof are given below. Find the length of the roof.



$$L^2 = 10^2 - 6^2$$

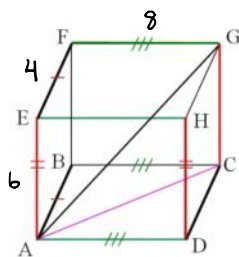
$$8 \times 2 = 16$$

$$L^2 = 100 - 36$$

$$L^2 = 64$$

$$L = 8$$

3. Challenge: Given EF = 4, FG = 8, & AE = 6. Find the length of AG, to 2 decimal places.



$$4^2 + 8^2 + 6^2 = AG^2$$

$$16 + 64 + 36 = AG^2$$

$$116 = AG^2$$

$$\sqrt{116} = AG$$

$$10.77 = AG$$

