

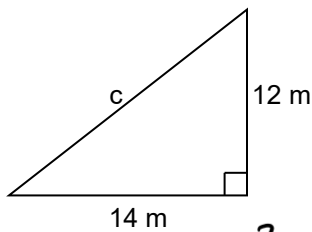
**Math 10W – Unit 5 – Assessment Quiz #1**

Name \_\_\_\_\_

TA: \_\_\_\_\_

1) Find the missing side. Round to one decimal place. SHOW YOUR WORK!

a)



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

$$14^2 + 12^2 = c^2$$

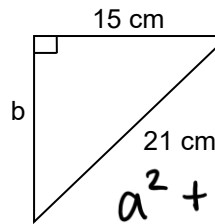
$$196 + 144 = c^2$$

$$340 = c^2$$

$$c = \sqrt{340}$$

$$c = 18.4 \text{ m}$$

b)



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

$$15^2 + b^2 = 21^2$$

$$225 + b^2 = 441$$

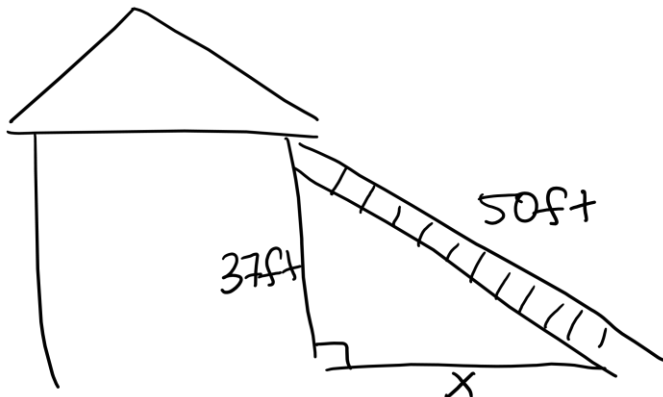
$$b^2 = 441 - 225$$

$$b^2 = 216$$

$$b = \sqrt{216}$$

$$b = 14.7 \text{ cm}$$

2) A 50 foot ladder reaches 37 feet up the side of a house. How far from the side of the house is the base of the ladder? Draw a diagram and show your work.



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

$$37^2 + x^2 = 50^2$$

$$1369 + x^2 = 2500$$

$$x^2 = 2500 - 1369$$

$$x^2 = 1131$$

$$x = \sqrt{1131}$$

$$x = 33.6 \text{ ft}$$

3) Label the following triangles with **h**, **o**, and **a** correctly.

