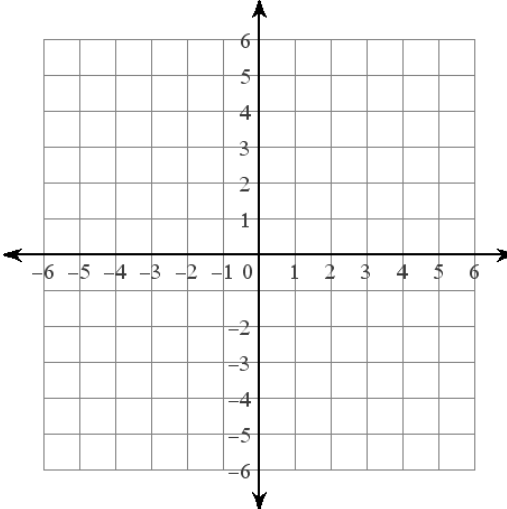


NAME: _____

UNIT 7 TEST REVIEW

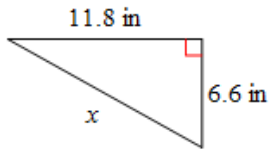
ALGEBRA REVIEW: 2 points each.

1) Solve: $\frac{v}{20} + 7 < 8$	2) Factor: $2x^2 - 5x - 7$	3) Graph: $5x - 2y = 10$ 
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Directions: Find the missing side of each triangle 4 points each.

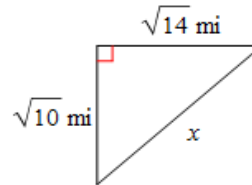
Round your answers to the nearest tenth if necessary.

4)



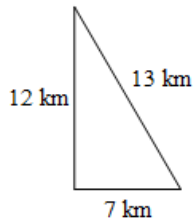
Leave your answers in simplest radical form.

5)



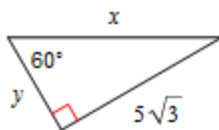
Directions: State if each triangle is acute, obtuse, or right. 4 points each.

6)

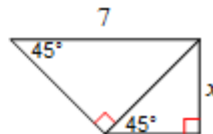


Directions: Find the missing side lengths. Leave your answers as radicals in simplest form. 4 points each.

7)

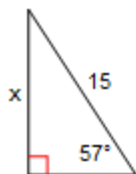


8)

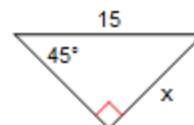


Directions: Find the missing side. Round to the nearest tenth. 4 points each.

9)



10)

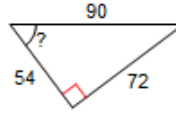


Directions: Find the measure of the indicated angle to the nearest degree. 4 points each.

11)



12)



Directions: For each situation draw a picture and then solve. Round to the nearest tenth if necessary. 5 points each.

20) What is the angle of depression between a woman in a hot air balloon that is 94 feet off the ground and her friend that is 200 feet from being directly underneath the balloon?

Unit 7 Applications

22) Mr. Brust is building his own house deep in the woods of Germany. He wants to be in an area that is all by himself because he doesn't play well with others. He builds the south wall of his house to be 56 feet high and perpendicular to floor which will be 105 feet long. He's running out of funds so instead of building a normal house with 4 sides, his house is going to have 3 sides. That means the last side will be a slanted roof.

a) Draw a picture, labeled correctly, of this situation (2 points).

b) Mr. Brust goes to the store and buys wood to build the slanted roof to be 125 feet long. Did he buy the correct amount of wood for the roof?

23) The Algebros go boating one day. Mr. Kelly and Mr. Brust ended up off course (typical!). When they realized that they needed to boat back to Mr. Sullivan they were 400 feet apart. The angle between each other and Mr. Sullivan for each of them was 45° .

a) Draw a picture, labeled correctly, of this situation (2 points).

b) How far are they each to Mr. Sullivan?