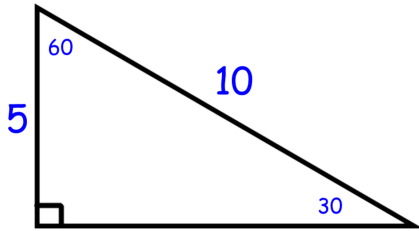
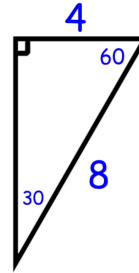


7.2 Special Right Triangles I

Ex 1: Find the missing side.



Ex 2: Find the missing side.



Every 30° - 60° - 90° has sides with the following relationship.

Missing Legs can be solved using similar triangles.

Ex 3:

*Remember that when multiplying or dividing radicals you can only multiply outside by outside and inside by inside

Find the missing lengths

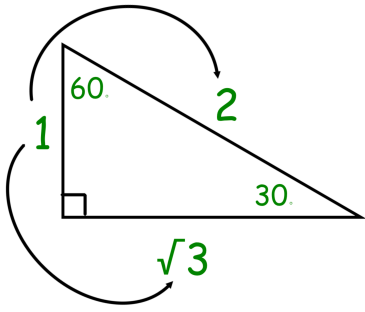
Ex 4:

Ex 5:

Ex 6:

*Remember that when you have a radical in the denominator of a fraction you must RATIONALIZE (See Alg I 11.2 for more help with that if needed)

SHORTCUT????



*

*

*

Ex 7:

Ex 8:

Ex 9:

Ex 10: Let's take it up a notch! Find x.

Mr. Kelly called Mr. Brust over to his house to move a box up some stairs to his second floor like he saw how to do on "The Big Bang Theory" using math. When they were finished they wanted to see how far they moved it. They measured along the floor and realized the longer leg was 12 feet long. How far did they move it?

You try...find the missing legs in simplified radical form.

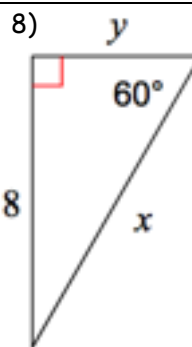
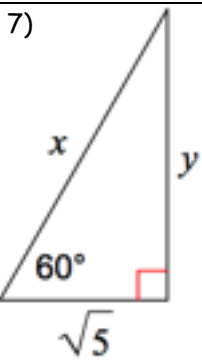
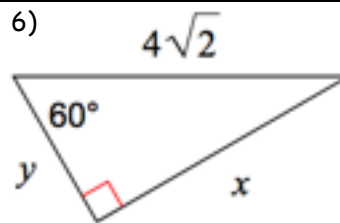
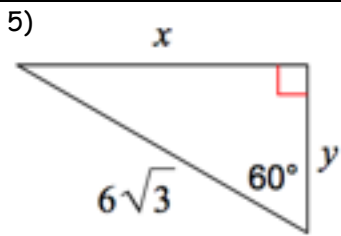
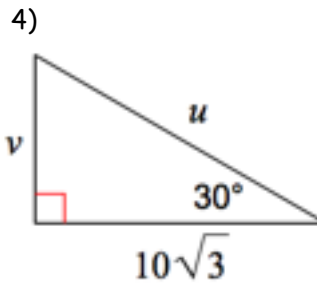
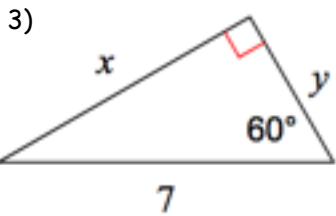
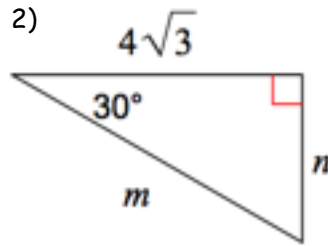
1)

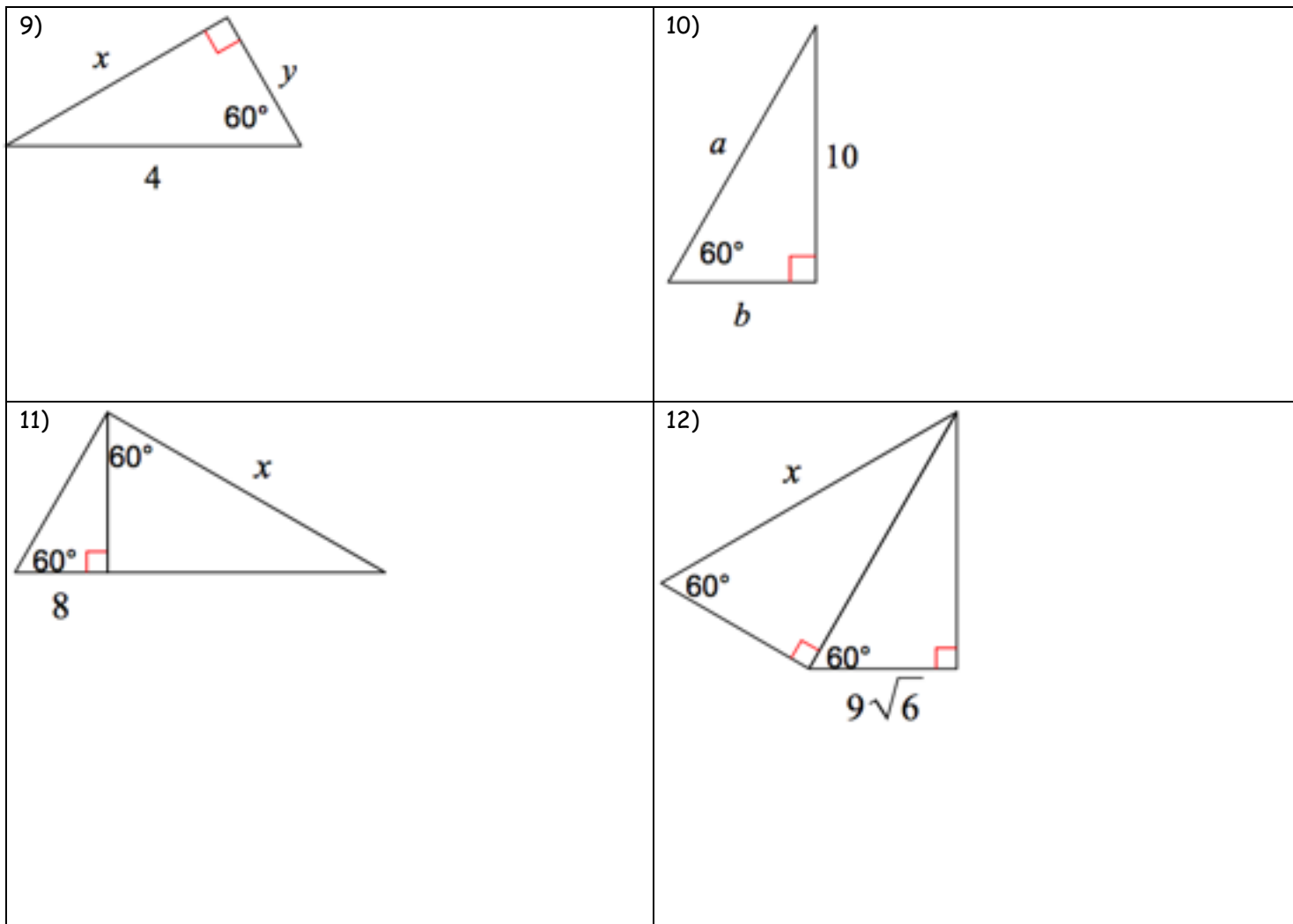
2)

Summary:

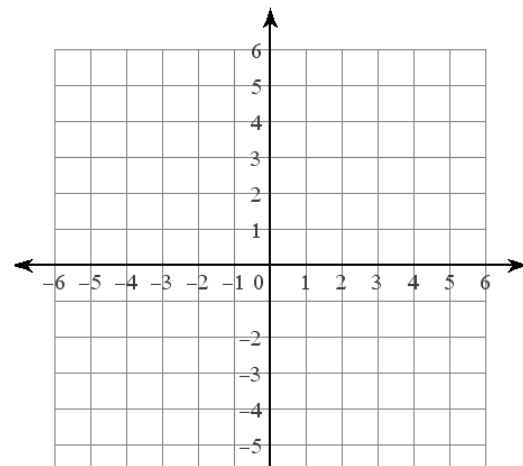
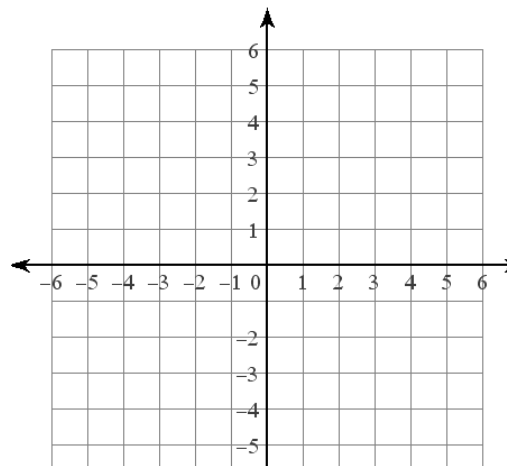
7.2 Practice Problems

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





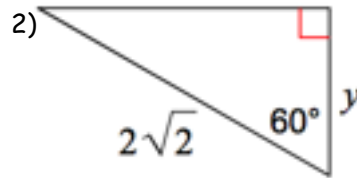
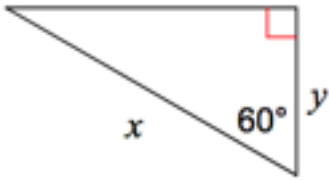
Algebra Review

<p>Solve: $-3 > \frac{k+3}{3}$</p>	<p>Solve: $-6(2n+8) \leq -108$</p>	<p>Factor: $x^2 + 8x + 16$</p>
<p>Factor: $2x^2 - 3x - 35$</p>	<p>Graph: $7x + 3y = 15$</p>  <p>A coordinate plane with x and y axes ranging from -6 to 6. Grid lines are spaced at 1-unit intervals.</p>	<p>Graph: $4x + 3y = 6$</p>  <p>A coordinate plane with x and y axes ranging from -6 to 6. Grid lines are spaced at 1-unit intervals.</p>

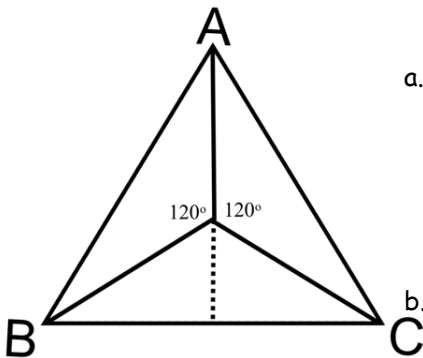
7.2 APPLICATION and EXTENSION

Directions: Find the missing sides.

1) $6\sqrt{3}$



3) Below is an equilateral triangle that has side lengths of 10 cm.



a. When a segment is drawn from the vertex to the center of the circle it forms 3 congruent triangles. The bottom two triangles are formed when the center vertex is bisected (also bisecting the opposite side).

b. LABEL the angles of the two new triangles.

c. Find the side lengths of these two newly formed triangles and label them.

4) Brust needs to climb onto his roof. Apparently that is where he stores his man-pri's. After reading the safety manual for his ladder he knows that the angle formed between the ladder and the ground needs to be at a 60° . He knows that his ladder is 25 feet tall. How high off the ground can he climb safely?

