

Unit 5-Lesson 5 Special Right Triangles 30-60-90

Recall Radical Functions:

1. $\sqrt{18} =$ _____ 2. $\sqrt{72} =$ _____ 3. $\sqrt{80} =$ _____

- At times we must simplify radical functions that are in a form of a _____ equation.
- The process of simplifying radical functions that are in a form of a rational equation is called _____ the denominator.

Rationalize the denominator:

1. $\frac{2}{\sqrt{7}} =$ _____ 2. $\frac{4}{\sqrt{5}} =$ _____ 3. $\frac{8}{\sqrt{10}} =$ _____

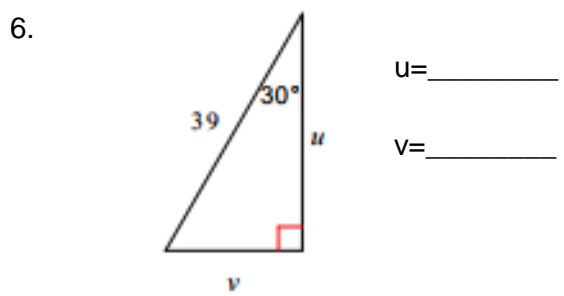
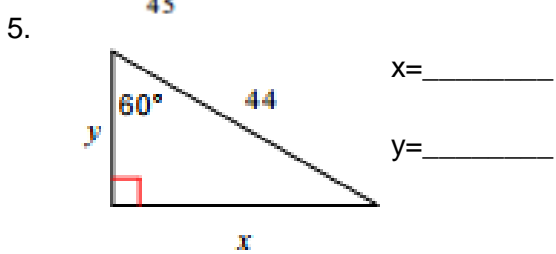
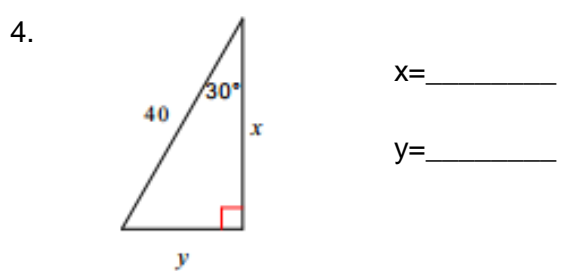
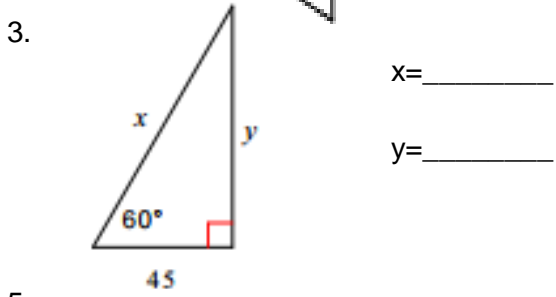
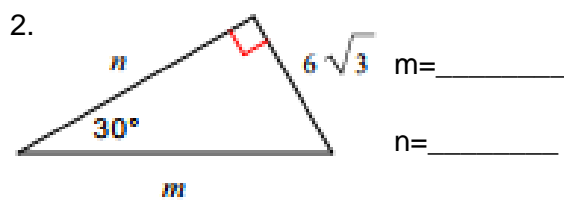
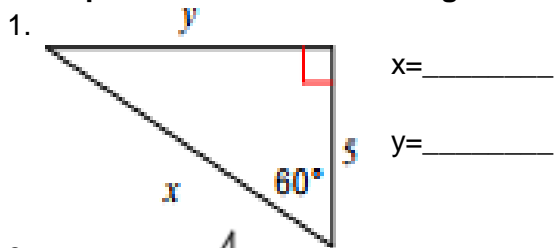
4. $\frac{7}{\sqrt{7}} =$ _____ 5. $\frac{5}{\sqrt{8}} =$ _____

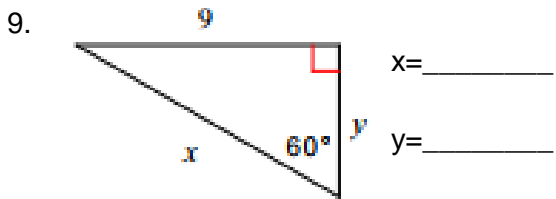
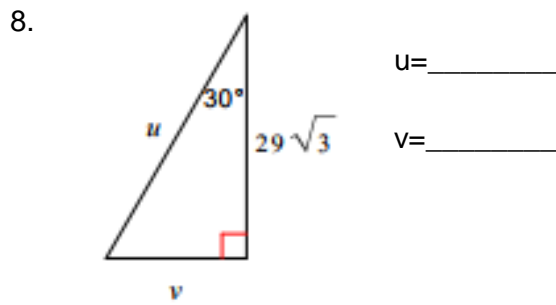
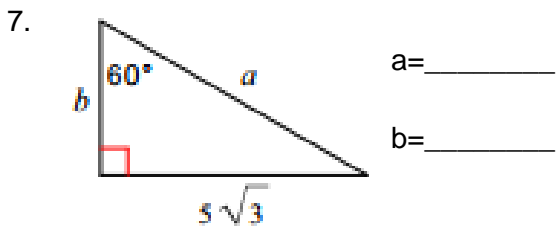
30-60-90 Right Triangles:

- The _____ of all right triangles are opposite of the _____ angle.
- Short leg is opposite of the _____ angle
- Longest leg is opposite of the _____ side.
- Always start with short leg:

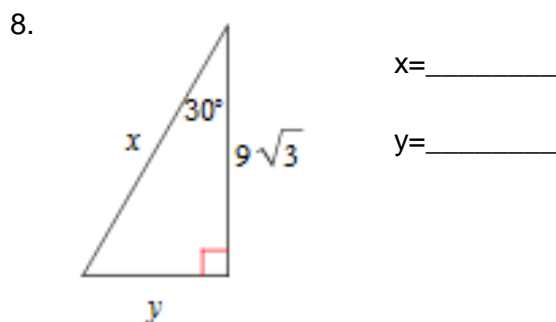
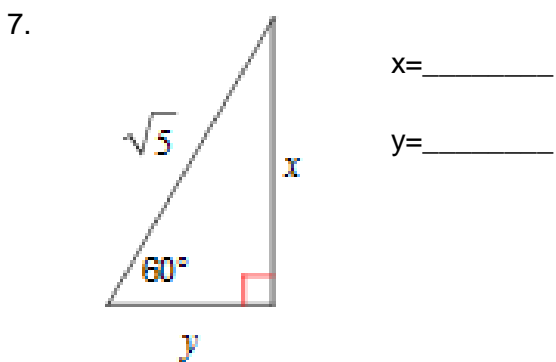
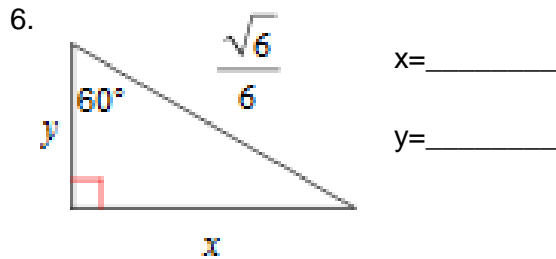
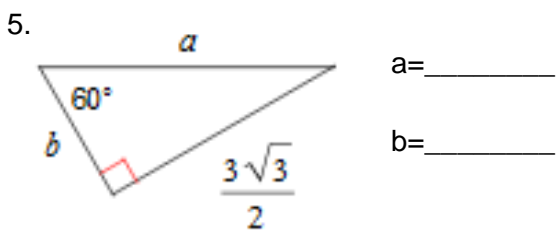
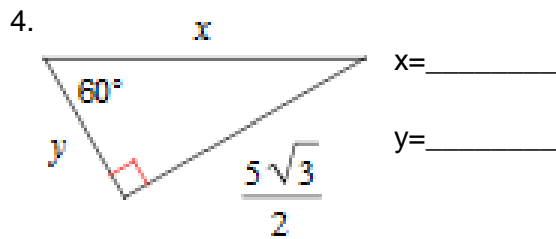
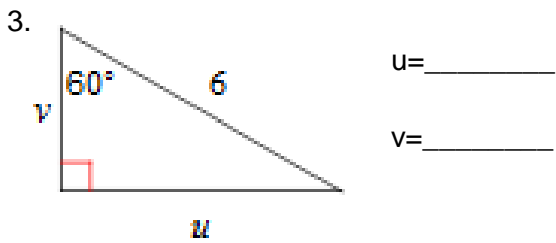
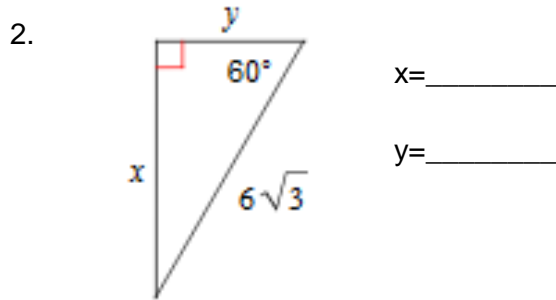
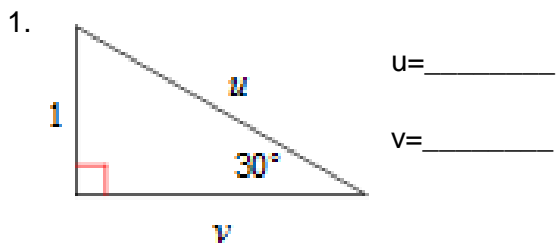
Long Leg= _____
Hypotenuse= _____

Examples: Solve for the missing side values



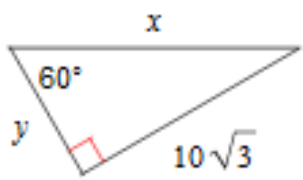


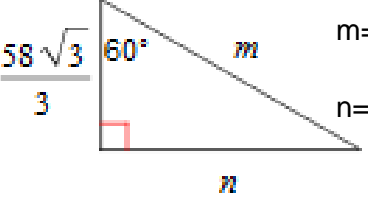
Practice: Solve for the indicated side values.

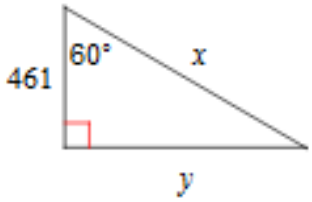


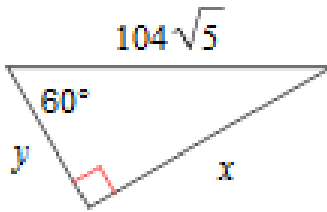
Unit 5-Lesson 5-Practice Special Right Triangles 30-60-90

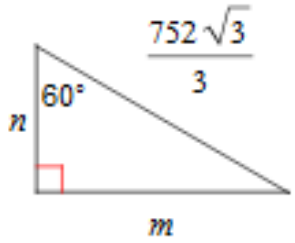
Solve for the missing values indicated.

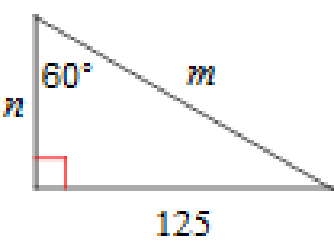
1.  $x = \underline{\hspace{2cm}}$
 $y = \underline{\hspace{2cm}}$

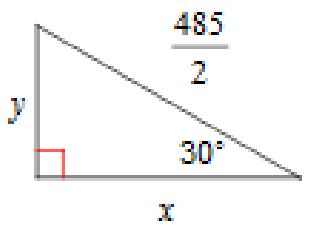
2.  $m = \underline{\hspace{2cm}}$
 $n = \underline{\hspace{2cm}}$

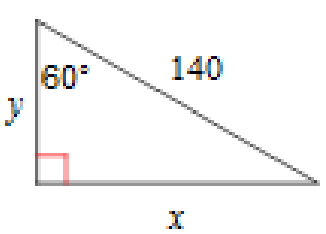
3.  $x = \underline{\hspace{2cm}}$
 $y = \underline{\hspace{2cm}}$

4.  $x = \underline{\hspace{2cm}}$
 $y = \underline{\hspace{2cm}}$

5.  $m = \underline{\hspace{2cm}}$
 $n = \underline{\hspace{2cm}}$

6.  $m = \underline{\hspace{2cm}}$
 $n = \underline{\hspace{2cm}}$

7.  $x = \underline{\hspace{2cm}}$
 $y = \underline{\hspace{2cm}}$

8.  $x = \underline{\hspace{2cm}}$
 $y = \underline{\hspace{2cm}}$