

Unit 5-Lesson 6 Special Right Triangles 45-45-90

Recall Radical Functions:

1. $\sqrt{96} =$ _____

2. $\sqrt{84} =$ _____

3. $\sqrt{156} =$ _____

- 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. $\frac{3}{\sqrt{11}} =$ _____

2. $\frac{7}{\sqrt{15}} =$ _____

3. $\frac{5}{\sqrt{3}} =$ _____

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

5. $\frac{3}{\sqrt{12}} =$ _____

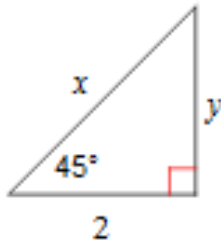
45-45-90 Right Triangles:

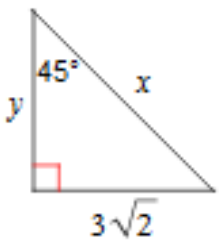
- The _____ of all right triangles are opposite of the _____ angle.
- Because we are working with 45-45-90 Triangle, we know that because of the two congruent angles, the legs will be _____ creating a right isosceles triangle.

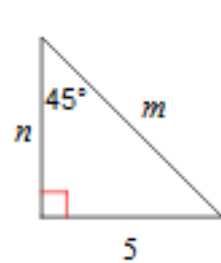
Leg: _____

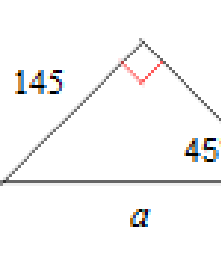
Hypotenuse: _____

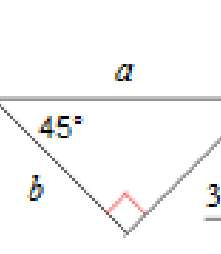
Examples: Solve for the missing side values

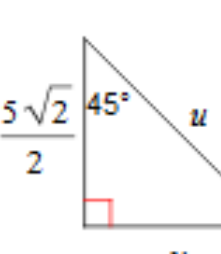
1.  $x =$ _____
 $y =$ _____

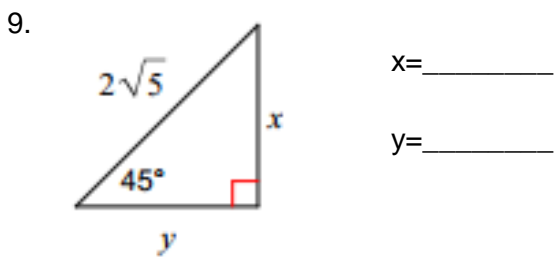
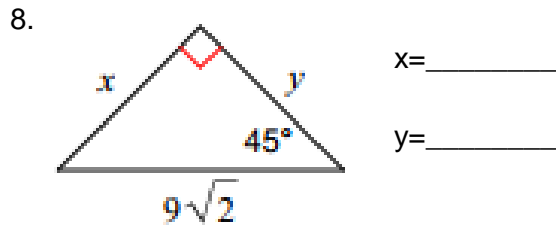
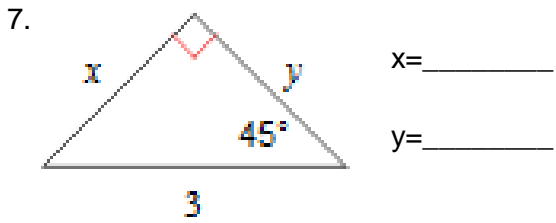
2.  $x =$ _____
 $y =$ _____

3.  $m =$ _____
 $n =$ _____

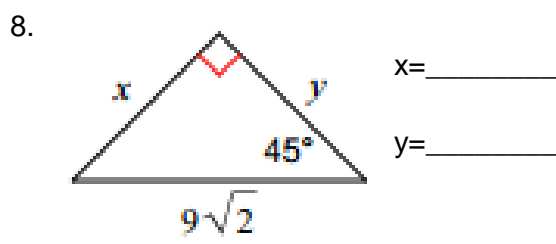
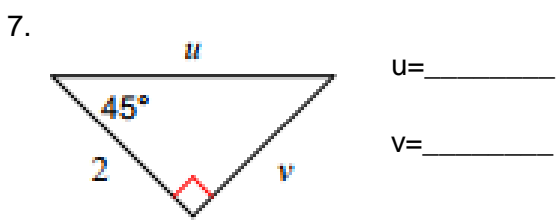
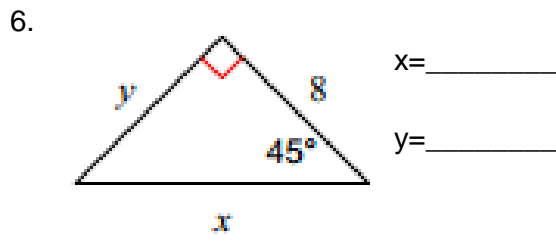
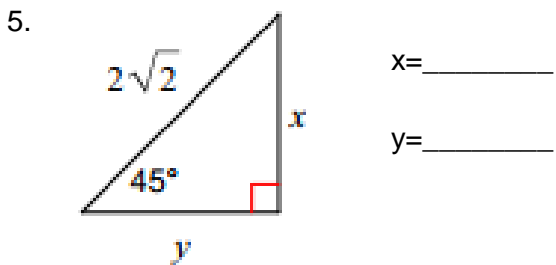
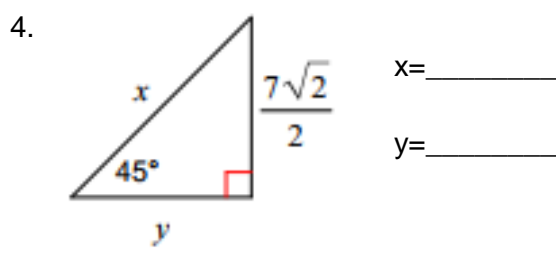
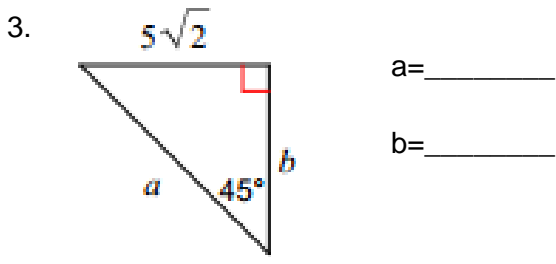
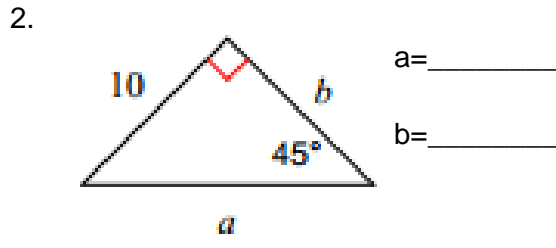
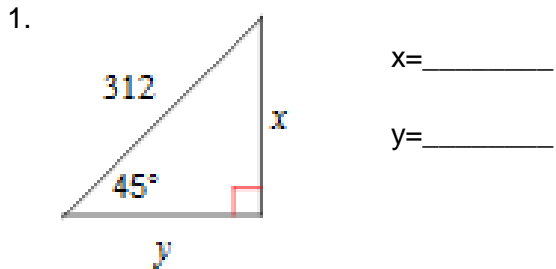
4.  $a =$ _____
 $b =$ _____

5.  $a =$ _____
 $b =$ _____

6.  $u =$ _____
 $v =$ _____

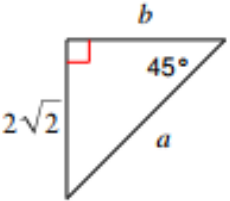


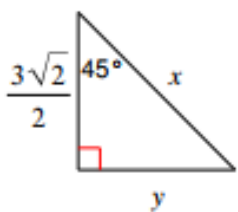
Practice: Solve for the indicated side values.

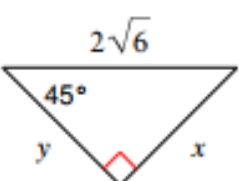


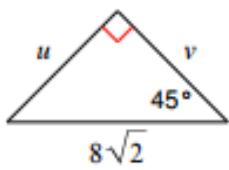
Unit 5-Lesson 6-Practice Special Right Triangles 45-45-90

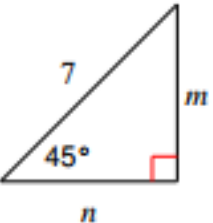
Solve for the missing values indicated.

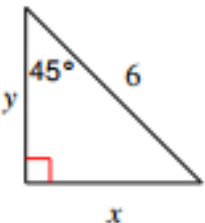
1.  $a = \underline{\hspace{2cm}}$
 $b = \underline{\hspace{2cm}}$

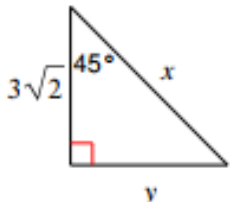
2.  $x = \underline{\hspace{2cm}}$
 $y = \underline{\hspace{2cm}}$

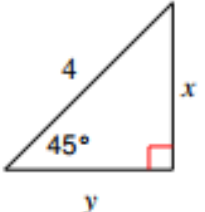
3.  $x = \underline{\hspace{2cm}}$
 $y = \underline{\hspace{2cm}}$

4.  $u = \underline{\hspace{2cm}}$
 $v = \underline{\hspace{2cm}}$

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

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

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

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