

6.2

Kuta Software - Infinite Geometry

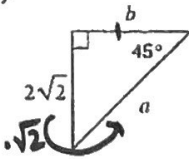
Name Key

Special Right Triangles

Date _____ Period _____

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

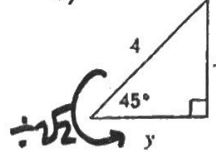
1)



$$a = 2\sqrt{2} \cdot \frac{\sqrt{2}}{2} = 2 \cdot 2 = \boxed{4}$$

$$b = \boxed{2\sqrt{2}}$$

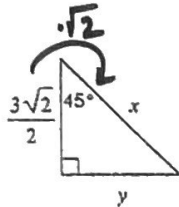
2)



$$x = \frac{4}{\sqrt{2}} \cdot \frac{\sqrt{2}}{2} = \frac{4\sqrt{2}}{2} = \boxed{2\sqrt{2}}$$

$$y = \boxed{2\sqrt{2}}$$

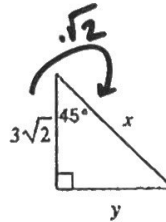
3)



$$y = \boxed{\frac{3\sqrt{2}}{2}}$$

$$x = \frac{3\sqrt{2}}{2} \cdot \frac{\sqrt{2}}{1} = \frac{3 \cdot 2}{2} = \boxed{3}$$

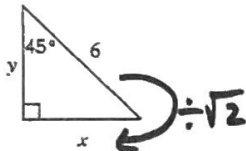
4)



$$x = 3\sqrt{2} \cdot \frac{\sqrt{2}}{2} = 3 \cdot 2 = \boxed{6}$$

$$y = \boxed{3\sqrt{2}}$$

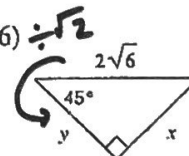
5)



$$x = \frac{6}{\sqrt{2}} \cdot \frac{\sqrt{2}}{2} = \frac{6\sqrt{2}}{2} = \boxed{3\sqrt{2}}$$

$$y = \boxed{3\sqrt{2}}$$

6)

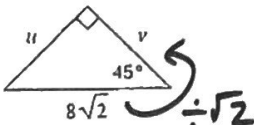


$$x = \frac{2\sqrt{6}}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}} = \frac{2 \cdot \sqrt{12}}{2} = \frac{\sqrt{12}}{1} = \frac{\sqrt{4 \cdot 3}}{1} = \frac{2\sqrt{3}}{1} = \boxed{2\sqrt{3}}$$

$$y = \boxed{2\sqrt{3}}$$

$$\frac{\sqrt{12}}{1} = \frac{2\sqrt{3}}{1} = \boxed{2\sqrt{3}}$$

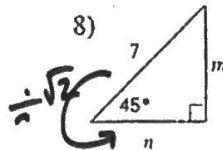
7)



$$u = \frac{8\sqrt{2}}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}} = \frac{8 \cdot 2}{2} = \boxed{8}$$

$$v = \boxed{8}$$

8)



$$n = \frac{7}{\sqrt{2}} \cdot \frac{\sqrt{2}}{2} = \frac{7\sqrt{2}}{2}$$

$$m = \boxed{\frac{7\sqrt{2}}{2}}$$

6.2 HW

Name: _____ Period: _____

Isosceles Right Triangles Assignment

I. Fill in the length of each segment in the following figures.

