

Geometry

Name _____ ID: 1

Assignment

Date _____ Period _____

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

1) $2\sqrt{2}$ \sqrt{b} $\sqrt{2}\sqrt{3}$ $2 \rightarrow 4\sqrt{3}$

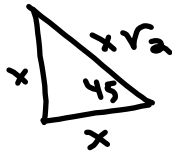
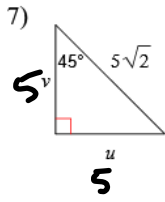
2) $\frac{4\sqrt{3}}{3}$ x y 4 $4\sqrt{3}$ $\frac{4\sqrt{3}}{3}$

3) 1 b 2 3 $1\sqrt{3}$ $x=1$ x x x 45

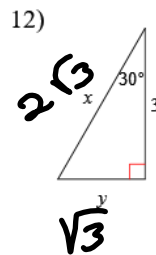
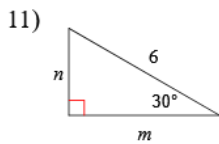
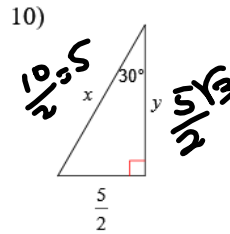
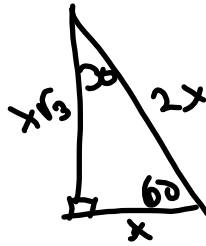
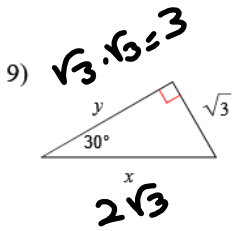
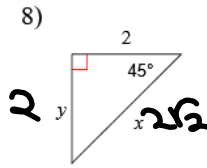
4) 2 b $\sqrt{3}$ $x\sqrt{3} = \sqrt{3}$ $x=1$ $2x$ 30 $x\sqrt{3}$ 60 x $\frac{1}{3}$

5) y 45 $2\sqrt{2}$ x $x\sqrt{2} = 2\sqrt{2}$ $x = 2\sqrt{2}$

6) $2\sqrt{2}$ 45 4 x $2\sqrt{2}$ $x\sqrt{2} = \frac{4\sqrt{2}}{\sqrt{2}} = \frac{4\sqrt{2}}{2} = 2\sqrt{2}$ $\sqrt{15}$ $\sqrt{15}$ 21 $\frac{\sqrt{2}\sqrt{5}}{\sqrt{10}}$



$$x \frac{\sqrt{2}}{\sqrt{2}} = \frac{5\sqrt{2}}{\sqrt{2}}$$



$$x \frac{\sqrt{3}}{\sqrt{3}} = \frac{3\sqrt{3}}{\sqrt{3}} = \frac{3\sqrt{3}}{\sqrt{3}}$$

13)

$3\sqrt{2} \cdot \sqrt{2}$
 $3 \cdot 2 = 6$
 $3\sqrt{2}$

14)

$\frac{2\sqrt{10}}{5} \cdot \sqrt{2} = \frac{2\sqrt{20}}{5}$
 $\frac{2 \cdot \sqrt{4} \cdot \sqrt{5}}{5} = \frac{4\sqrt{5}}{5}$

15)

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

16)

$2\sqrt{6} \cdot \sqrt{2}$
 $2\sqrt{12}$
 $2 \cdot \sqrt{4} \cdot \sqrt{3}$
 $2 \cdot 2 \cdot \sqrt{3}$

Geometry

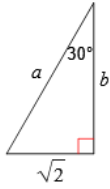
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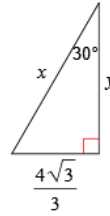
Find the missing side lengths. Leave your answers as radicals in simplest form.

1)



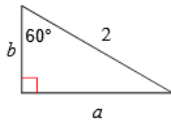
$$a = 2\sqrt{2}, b = \sqrt{6}$$

2)



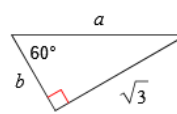
$$x = \frac{8\sqrt{3}}{3}, y = 4$$

3)



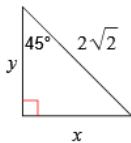
$$a = \sqrt{3}, b = 1$$

4)



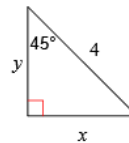
$$a = 2, b = 1$$

5)

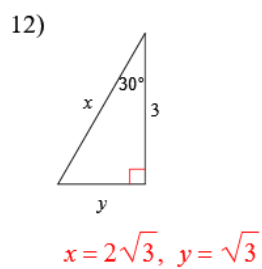
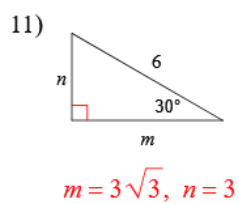
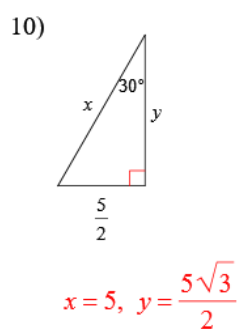
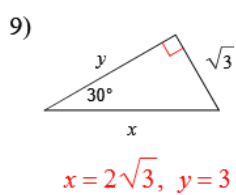
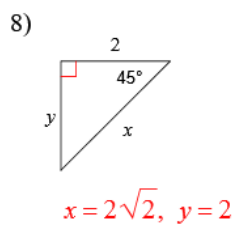
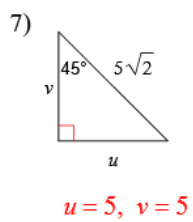


$$x = 2, y = 2$$

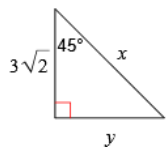
6)



$$x = 2\sqrt{2}, y = 2\sqrt{2}$$

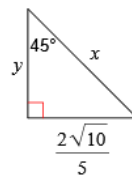


13)



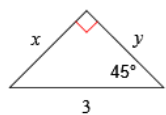
$$x = 6, y = 3\sqrt{2}$$

14)



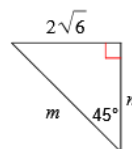
$$x = \frac{4\sqrt{5}}{5}, y = \frac{2\sqrt{10}}{5}$$

15)



$$x = \frac{3\sqrt{2}}{2}, y = \frac{3\sqrt{2}}{2}$$

16)



$$m = 4\sqrt{3}, n = 2\sqrt{6}$$