

Radicals and Special Triangles

Date _____ Period _____

Simplify.

1) $\frac{4\sqrt{25}}{3\sqrt{15}}$

2) $\frac{7\sqrt{5}}{\sqrt{3}}$

3) $\frac{\sqrt{30}}{3\sqrt{35}}$

4) $\frac{\sqrt{5}}{\sqrt{7}}$

5) $\frac{5\sqrt{10}}{\sqrt{30}}$

6) $\frac{7\sqrt{2}}{6\sqrt{14}}$

7) $\frac{\sqrt{36}}{2\sqrt{30}}$

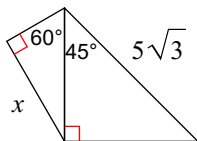
8) $\frac{6\sqrt{5}}{\sqrt{6}}$

9) $\frac{\sqrt{7}}{\sqrt{6}}$

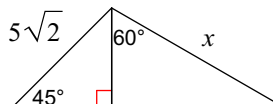
10) $\frac{5\sqrt{2}}{\sqrt{3}}$

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

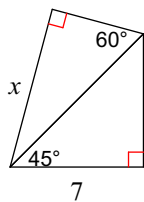
11)



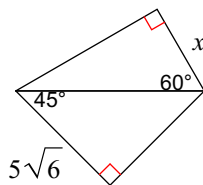
12)



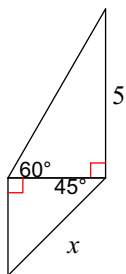
13)



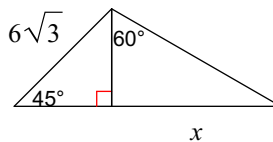
14)



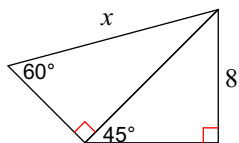
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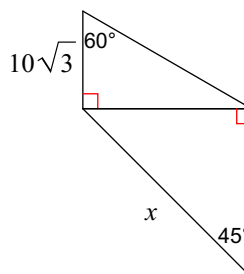
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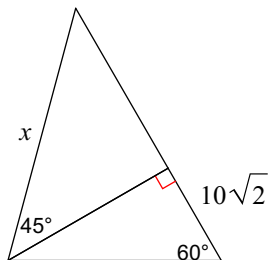
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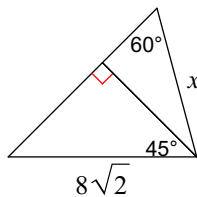
18)



19)



20)



Radicals and Special Triangles

Date _____ Period _____

Simplify.

$$1) \frac{4\sqrt{25}}{3\sqrt{15}}$$

$$\frac{4\sqrt{15}}{9}$$

$$2) \frac{7\sqrt{5}}{\sqrt{3}}$$

$$\frac{7\sqrt{15}}{3}$$

$$3) \frac{\sqrt{30}}{3\sqrt{35}}$$

$$\frac{\sqrt{42}}{21}$$

$$4) \frac{\sqrt{5}}{\sqrt{7}}$$

$$\frac{\sqrt{35}}{7}$$

$$5) \frac{5\sqrt{10}}{\sqrt{30}}$$

$$\frac{5\sqrt{3}}{3}$$

$$6) \frac{7\sqrt{2}}{6\sqrt{14}}$$

$$\frac{\sqrt{7}}{6}$$

$$7) \frac{\sqrt{36}}{2\sqrt{30}}$$

$$\frac{\sqrt{30}}{10}$$

$$8) \frac{6\sqrt{5}}{\sqrt{6}}$$

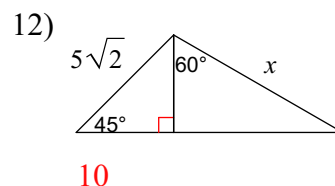
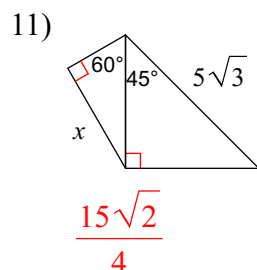
$$\sqrt{30}$$

$$9) \frac{\sqrt{7}}{\sqrt{6}}$$

$$\frac{\sqrt{42}}{6}$$

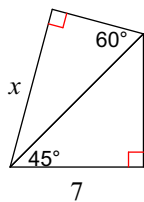
$$10) \frac{5\sqrt{2}}{\sqrt{3}}$$

$$\frac{5\sqrt{6}}{3}$$

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

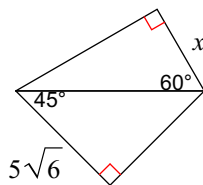
10

13)



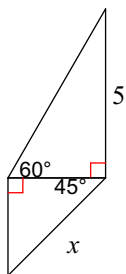
$$\frac{7\sqrt{6}}{2}$$

14)



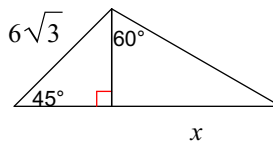
$$5\sqrt{3}$$

15)



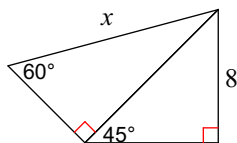
$$\frac{5\sqrt{6}}{3}$$

16)



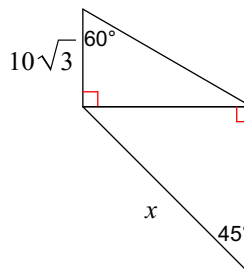
$$9\sqrt{2}$$

17)



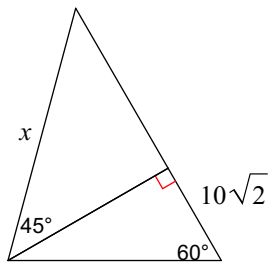
$$\frac{16\sqrt{6}}{3}$$

18)



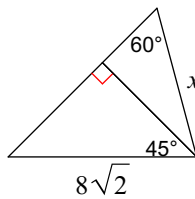
$$30\sqrt{2}$$

19)



$$20\sqrt{3}$$

20)



$$\frac{16\sqrt{3}}{3}$$