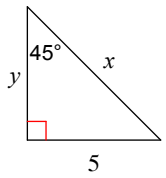
Geometry Name_____ ID: 1

Assignment

Date_____ Period____

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

1)



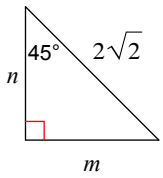
A) $x = \frac{10\sqrt{6}}{3},\ y = \frac{10\sqrt{3}}{3}$

B) $x = \frac{10\sqrt{3}}{3},\ y = \frac{10\sqrt{6}}{3}$

C) $x = \frac{10\sqrt{6}}{3},\ y = 5$

D) $x = 5\sqrt{2},\ y = 5$

2)



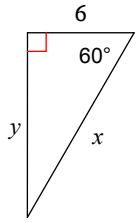
A) $m = \sqrt{2},\ n = \sqrt{2}$

B) $m = 2,\ n = 2$

C) $m = 2\sqrt{2},\ n = 2\sqrt{2}$

D) $m = \frac{4\sqrt{3}}{3},\ n = \sqrt{2}$

3)



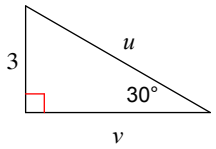
A) $x = 12\sqrt{2},\ y = 6\sqrt{3}$

B) $x = 12,\ y = 6\sqrt{3}$

C) $x = 12,\ y = 12$

D) $x = 12\sqrt{2},\ y = 12$

4)



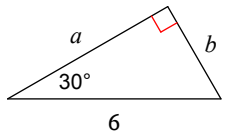
A) $u = 3\sqrt{2},\ v = 3\sqrt{3}$

B) $u = 3\sqrt{3},\ v = 6$

C) $u = 3\sqrt{3},\ v = 3\sqrt{2}$

D) $u = 6,\ v = 3\sqrt{3}$

5)



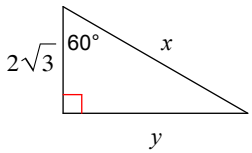
A) $a = 3\sqrt{3},\ b = 2\sqrt{3}$

B) $a = 3\sqrt{3},\ b = 3$

C) $a = 3\sqrt{6},\ b = 3$

D) $a = 3\sqrt{6},\ b = 2\sqrt{3}$

6)



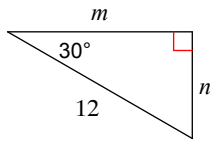
A) $x = 12,\ y = 3\sqrt{2}$

B) $x = 3\sqrt{2},\ y = 12$

C) $x = 4\sqrt{3},\ y = 6$

D) $x = 4\sqrt{3},\ y = 3\sqrt{2}$

7)



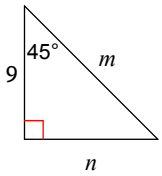
A) $m = 6\sqrt{3},\ n = 3$

B) $m = 6\sqrt{3},\ n = 6$

C) $m = 6,\ n = 6\sqrt{3}$

D) $m = 9,\ n = 6$

8)



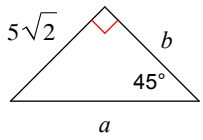
A) $m = 9\sqrt{6},\ n = 9$

B) $m = 9\sqrt{6},\ n = \frac{9}{2}$

C) $m = 9\sqrt{2},\ n = 9$

D) $m = \frac{9}{2},\ n = 9\sqrt{6}$

9)



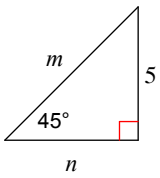
A) $a = 10,\ b = 5\sqrt{2}$

B) $a = \frac{20\sqrt{3}}{3},\ b = \frac{5\sqrt{6}}{2}$

C) $a = 10,\ b = \frac{5\sqrt{6}}{2}$

D) $a = \frac{20\sqrt{3}}{3},\ b = 5\sqrt{2}$

10)



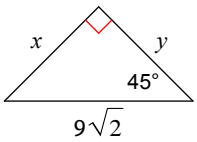
A) $m = 10,\ n = \frac{5\sqrt{2}}{2}$

B) $m = 5,\ n = 5\sqrt{2}$

C) $m = 5\sqrt{2},\ n = 5$

D) $m = 10,\ n = 5$

11)



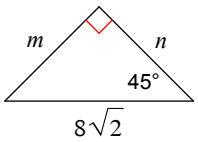
A) $x = 18,\ y = 18$

B) $x = \frac{9\sqrt{2}}{2},\ y = \frac{9\sqrt{2}}{2}$

C) $x = 9,\ y = 9$

D) $x = 9\sqrt{3},\ y = 9\sqrt{3}$

12)



A) $m = 8\sqrt{3},\ n = 8\sqrt{3}$

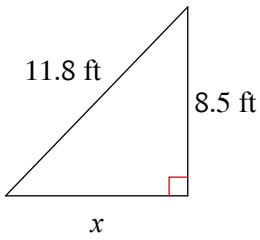
B) $m = \frac{8\sqrt{3}}{3},\ n = \frac{16\sqrt{3}}{3}$

C) $m = 4,\ n = 4$

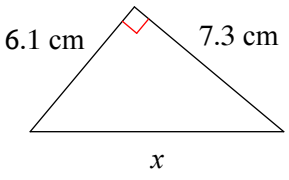
D) $m = 8,\ n = 8$

Find the missing side of each triangle. Round your answers to the nearest tenth if necessary.

13)

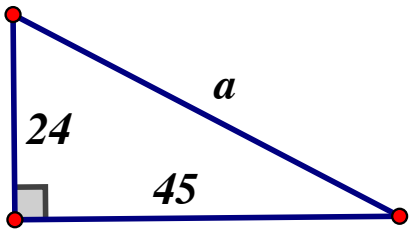


14)

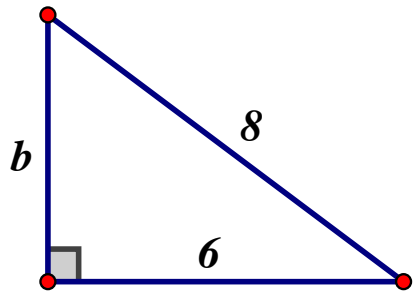


In each of the problems #15 – 20, you are given a right triangle with one unknown side length. Find each missing side length.

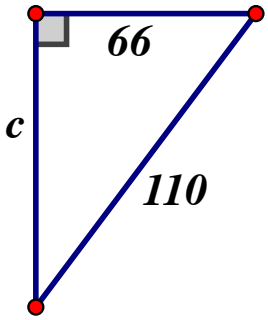
15.



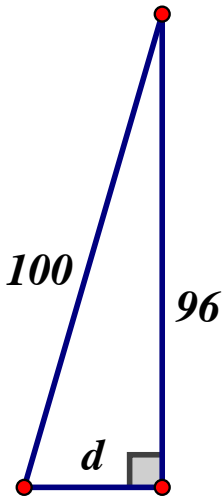
16.



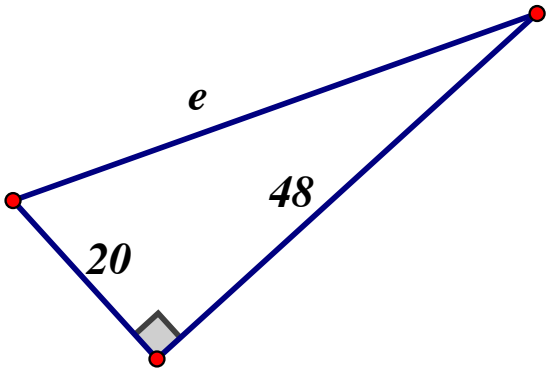
17.



18.



19.



20.