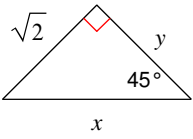


## 45-45-90 triangles

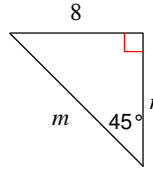
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**Find the missing side lengths. Leave your answers as radicals in simplest form.**

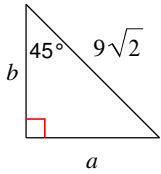
1)



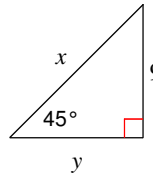
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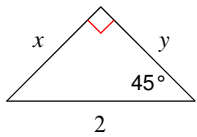
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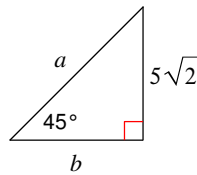
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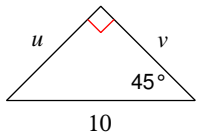
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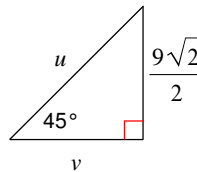
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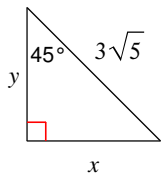
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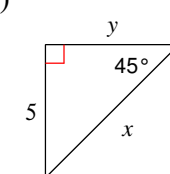
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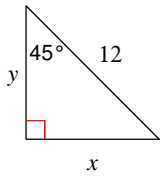
9)



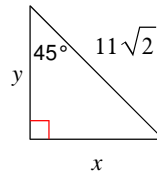
10)



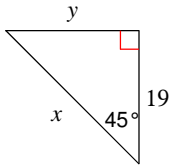
11)



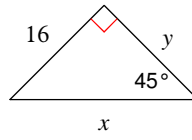
12)



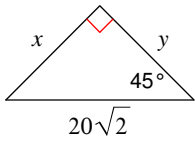
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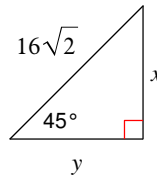
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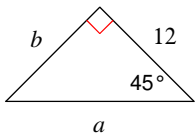
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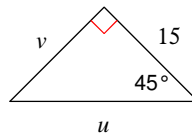
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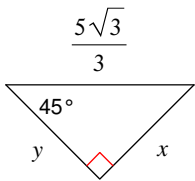
17)



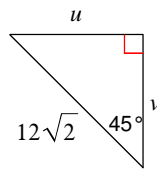
18)



19)



20)



## Answers to 45-45-90 triangles

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

2)  $m = 8\sqrt{2}, n = 8$

3)  $a = 9, b = 9$

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

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

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

7)  $u = 5\sqrt{2}, v = 5\sqrt{2}$

8)  $u = 9, v = \frac{9\sqrt{2}}{2}$

9)  $x = \frac{3\sqrt{10}}{2}, y = \frac{3\sqrt{10}}{2}$

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

11)  $x = 6\sqrt{2}, y = 6\sqrt{2}$

12)  $x = 11, y = 11$

13)  $x = 19\sqrt{2}, y = 19$

14)  $x = 16\sqrt{2}, y = 16$

15)  $x = 20, y = 20$

16)  $x = 16, y = 16$

17)  $a = 12\sqrt{2}, b = 12$

18)  $u = 15\sqrt{2}, v = 15$

19)  $x = \frac{5\sqrt{6}}{6}, y = \frac{5\sqrt{6}}{6}$

20)  $u = 12, v = 12$