

Special Right Triangles – $45^\circ\text{-}45^\circ\text{-}90^\circ$ and $30^\circ\text{-}60^\circ\text{-}90^\circ$ Triangles.

1) In a $45^\circ\text{-}45^\circ\text{-}90^\circ$ triangle, the hypotenuse is _____ times as long as a leg.

2) In a $30^\circ\text{-}60^\circ\text{-}90^\circ$ triangle, the hypotenuse is _____ as long as the shorter leg, and the longer leg is _____ times as long as the shorter leg.

Given the length of the legs, find the length of the hypotenuse of each $45^\circ\text{-}45^\circ\text{-}90^\circ$ triangle.

1) 8

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

Given the length of the hypotenuse, find the length of the legs of each $45^\circ\text{-}45^\circ\text{-}90^\circ$ triangle.

4) $4\sqrt{2}$

5) 10

6) $12\sqrt{2}$

Using the sides given, find the other two sides for each $30^\circ\text{-}60^\circ\text{-}90^\circ$ triangle.

7) shorter leg: $3\sqrt{3}$

8) hypotenuse: 14

9) longer leg: $\sqrt{6}$