

- 1) In a 45° - 45° - 90° triangle, the hypotenuse is _____ times as long as a leg.
- 2) In a 30° - 60° - 90° 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° - 45° - 90° triangle.

- 3) 8 4) $5\sqrt{2}$ 5) $2\sqrt{6}$

Given the length of the hypotenuse, find the length of the legs of each 45° - 45° - 90° triangle.

- 6) $6\sqrt{2}$ 7) 10 8) $12\sqrt{3}$

Using the sides given, find the other two sides in each 30° - 60° - 90° triangle.

- 9) shorter leg: $8\sqrt{3}$ 10) hypotenuse: 14 11) longer leg: $\sqrt{6}$

Answer Key

- 1) $\sqrt{2}$
- 2) twice, $\sqrt{3}$
- 3) $8\sqrt{2}$
- 4) 10
- 5) $4\sqrt{3}$
- 6) 8
- 7) $5\sqrt{2}$
- 8) $6\sqrt{6}$
- 9) hypotenuse = $16\sqrt{3}$, longer leg = 24
- 10) shorter leg = 7, longer leg = $7\sqrt{3}$
- 11) shorter leg = $\sqrt{2}$, longer leg = $2\sqrt{2}$