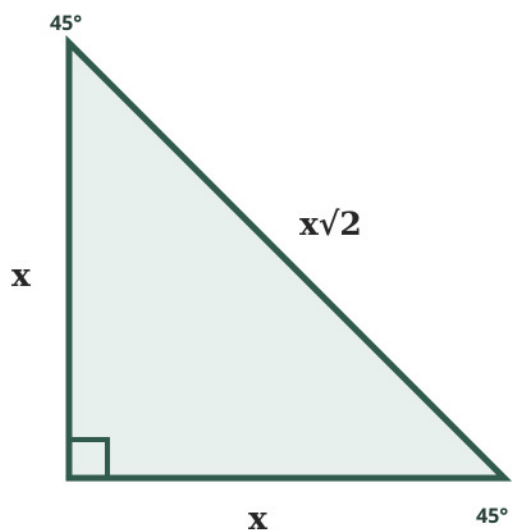


Special Right Triangles Chart

A printable special right triangles chart with 45-45-90 and 30-60-90 diagrams, side ratios, and missing-side examples.

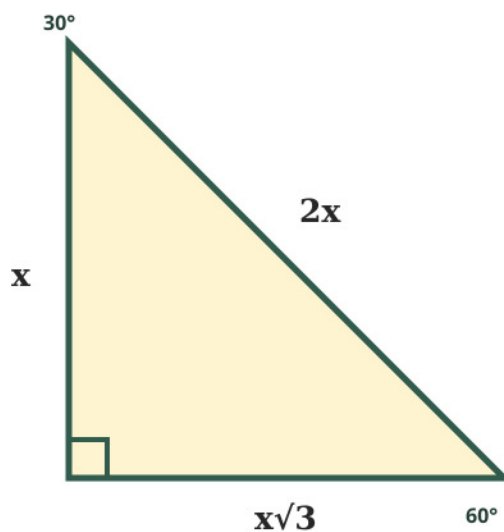
45°-45°-90°



leg : leg : hypotenuse

$$x : x : x\sqrt{2}$$

30°-60°-90°



short : long : hypotenuse

$$x : x\sqrt{3} : 2x$$

Special Right Triangles Chart

01 45-45-90 triangle

An isosceles right triangle.

Side ratio

$$x : x : x\sqrt{2}$$

Example

$$\text{leg } 7 \rightarrow \text{hypotenuse } 7\sqrt{2}$$

Special Right Triangles Chart

02 30-60-90 triangle

Shortest leg, longer leg, hypotenuse.

Side ratio

$$x : x\sqrt{3} : 2x$$

Example

hypotenuse 18 → short leg 9, long leg $9\sqrt{3}$

Special Right Triangles Chart

HOW TO REMEMBER IT

Match each side to its opposite angle

1

In a 45-45-90 triangle, the legs match and the hypotenuse is leg times $\sqrt{2}$.

2

In a 30-60-90 triangle, the side opposite 30° is shortest.

3

The 30-60-90 ratio is $x : x\sqrt{3} : 2x$.