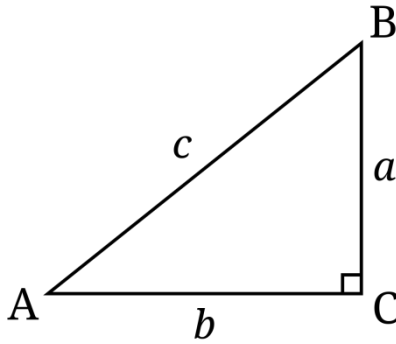


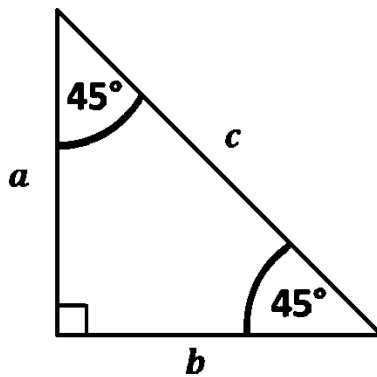
PYTHAGOREAN THEOREM



| Hypotenuse (c) | Leg (a) | Leg (b) |
|------------------------|------------------------|------------------------|
| $c = \sqrt{a^2 + b^2}$ | $a = \sqrt{c^2 - b^2}$ | $b = \sqrt{c^2 - a^2}$ |

Special Right Triangles

1. Isosceles Right Triangle ($45^\circ - 45^\circ - 90^\circ$)

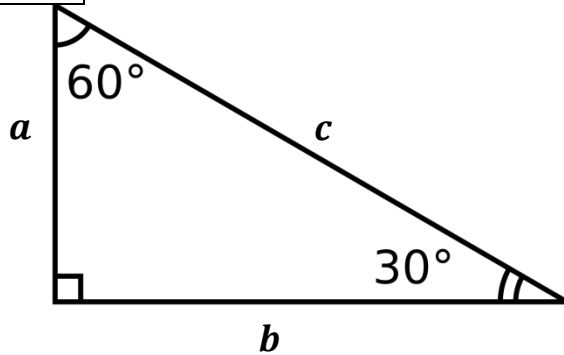


Note:

$$a = b$$

| Hypotenuse (c) | Leg (a) | Leg (b) |
|-----------------------------|---------------------------|---------------------------|
| $c = a\sqrt{2} = b\sqrt{2}$ | $a = \frac{c\sqrt{2}}{2}$ | $b = \frac{c\sqrt{2}}{2}$ |

2. $30^\circ - 60^\circ - 90^\circ$



| Hypotenuse (c) | Leg (a) | Leg (b) |
|----------------------------|---------------------------|---------------------------|
| $c = 2a$ | $a = \frac{c}{2}$ | $b = \frac{c\sqrt{3}}{2}$ |
| $c = \frac{2b\sqrt{3}}{3}$ | $a = \frac{b\sqrt{3}}{3}$ | $b = a\sqrt{3}$ |