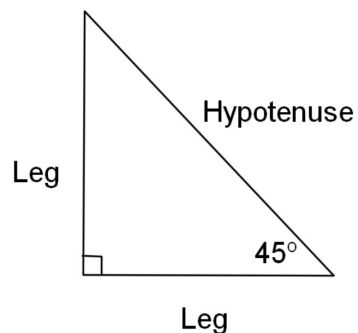


Sec 8-2: Special Right Triangles.

NOTES

45° - 45° - 90° Triangle: also known as an isosceles right triangle.

- Legs are congruent
- Hypotenuse = $\text{Leg} \cdot \sqrt{2}$
- $\text{Leg} = \frac{\text{Hypotenuse}}{\sqrt{2}}$

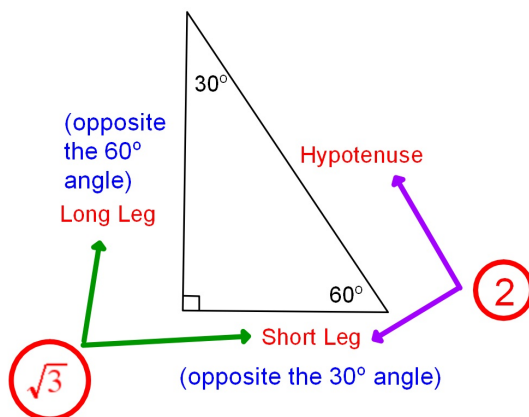


Rationalizing a denominator.

Since $\sqrt{2}$ is an irrational number we must do something to eliminate it from the denominator.

$$\frac{13}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}} = \frac{13\sqrt{2}}{2}$$

30° - 60° - 90° Right Triangle:



Short Leg \longleftrightarrow Hypotenuse

$$\text{SL} = \text{Hypot} \div 2$$

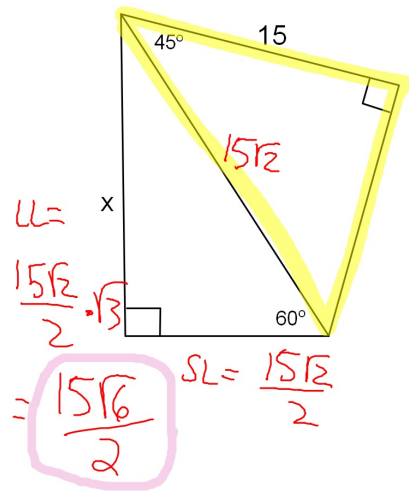
$$\text{Hypot} = \text{SL} \times 2$$

Short Leg \longleftrightarrow Long Leg

$$\text{SL} = \text{LL} \div \sqrt{3}$$

$$\text{LL} = \text{SL} \times \sqrt{3}$$

Find the value of x in simplest radical form.



Find the value of a and b .

