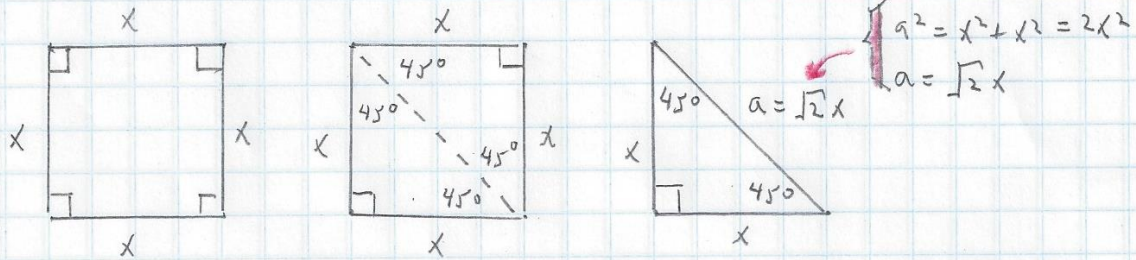


4A.3. Special Right Triangles

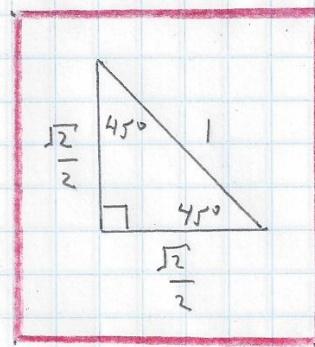
1 of 1

45°-45°-90° Triangle is half of a square.

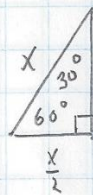
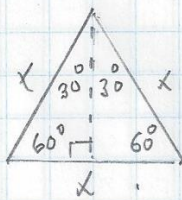
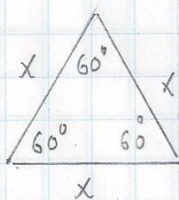


Divide all three sides by $\sqrt{2}x$...

$$\frac{x}{\sqrt{2}x} = \frac{\sqrt{2}x}{\sqrt{2}x} = 1 \quad \frac{x}{\sqrt{2}x} = \frac{1}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}} = \frac{\sqrt{2}}{2}$$



30°-60°-90° Triangle is half of an equilateral triangle



$$\left(\frac{x}{2}\right)^2 + a^2 = x^2$$

$$\frac{x^2}{4} + a^2 = x^2$$

$$a^2 = x^2 - \frac{x^2}{4} = \frac{3x^2}{4}$$

$$a = \frac{\sqrt{3}x}{2}$$

Divide all three sides by x ...

$$1 = \frac{x}{x} \quad \frac{\sqrt{3}x}{2x} = \frac{\sqrt{3}}{2}$$

$$\frac{x/2}{x} = \frac{1}{2}$$

