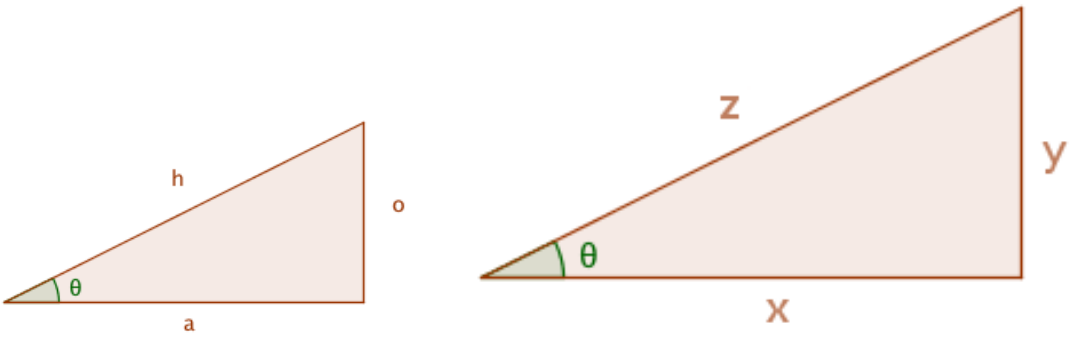
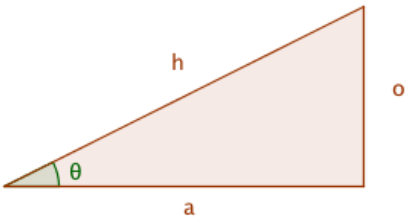
1 Similar Triangles



In similar triangles, ratios of pairs of sides are proportional.

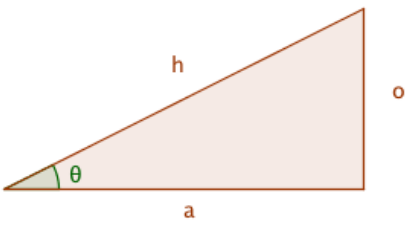
$$\frac{o}{a} = \frac{y}{x} \qquad \frac{o}{h} = \frac{y}{z} \qquad \frac{a}{h} = \frac{x}{z}$$

2 Pythagorean Theorem



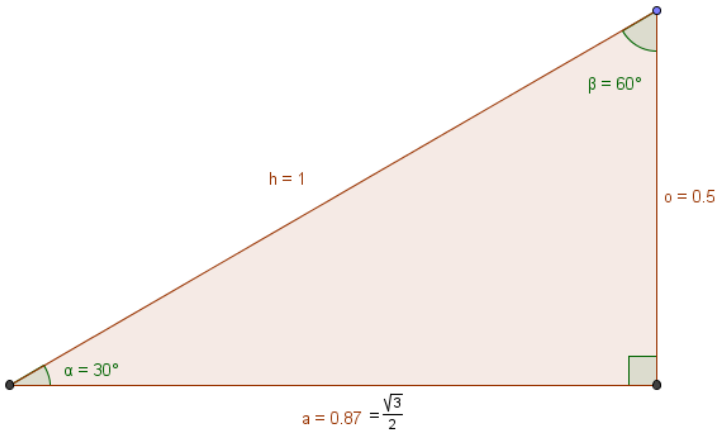
$$\mathbf{a^2 + o^2 = h^2}$$

3 Trigonometric Functions



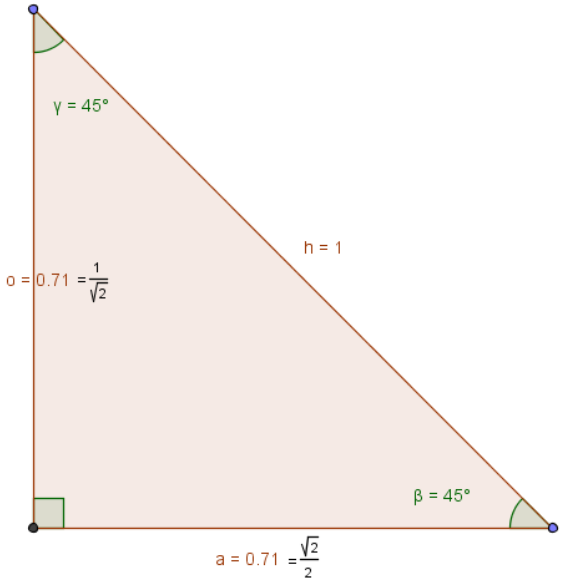
$$\sin(\theta) = \frac{o}{h} \qquad \cos(\theta) = \frac{a}{h} \qquad \tan(\theta) = \frac{o}{a}$$

4 Special Triangles



$$\cos(30°) = \frac{\sqrt{3}}{2} \qquad \sin(30°) = \frac{1}{2} \qquad \tan(30°) = \frac{1}{\sqrt{3}}$$

$$\cos(60°) = \frac{1}{2} \qquad \sin(60°) = \frac{\sqrt{3}}{2} \qquad \tan(60°) = \sqrt{3}$$



$$\cos(45°) = \frac{\sqrt{2}}{2} \qquad \sin(45°) = \frac{\sqrt{2}}{2} \qquad \tan(45°) = 1$$