

Unit 1.4 Notes Trigonometric Functions of Acute Angles

Cofunction Identities in Degrees:

(Notice that $90^\circ - x$ gives us an angle's complement.)

$$\sin(x) = \cos(90^\circ - x)$$

$$\cos(x) = \sin(90^\circ - x)$$

$$\tan(x) = \cot(90^\circ - x)$$

$$\cot(x) = \tan(90^\circ - x)$$

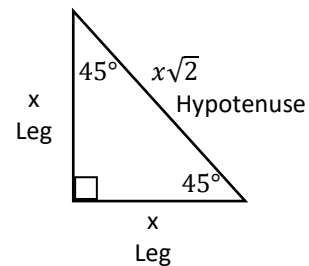
$$\sec(x) = \csc(90^\circ - x)$$

$$\csc(x) = \sec(90^\circ - x)$$

Special right triangles

45°, 45°, 90° triangle

leg to hypotenuse: times by $\sqrt{2}$
hypotenuse to leg: divide by $\sqrt{2}$
leg to leg: times by 1



30°, 60°, 90° triangle,

short leg to hypotenuse: times by 2
hypotenuse to short leg: divide by 2
short leg to long leg: times by $\sqrt{3}$
long leg to short leg: divide by $\sqrt{3}$

