

## Right Triangle Trigonometric References

### Functions

<b><u>Radians:</u></b>	0	$\pi/6$	$\pi/4$	$\pi/3$	$\pi/2$	$\pi$	$3\pi/2$	$2\pi$
<b><u>Degrees:</u></b>	$0^\circ$	$30^\circ$	$45^\circ$	$60^\circ$	$90^\circ$	$180^\circ$	$270^\circ$	$360^\circ$

<b>sin</b>	0	$\frac{1}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{\sqrt{3}}{2}$	1	0	-1	0
<b>cos</b>	1	$\frac{\sqrt{3}}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{1}{2}$	0	-1	0	1
<b>tan</b>	0	$\frac{\sqrt{3}}{3}$	1	$\sqrt{3}$	Undefined	0	Undefined	0
<b>csc</b>	Undefined	2	$\sqrt{2}$	$\frac{2\sqrt{3}}{3}$	1	Undefined	-1	Undefined
<b>sec</b>	1	$\frac{2\sqrt{3}}{3}$	$\sqrt{2}$	2	Undefined	-1	Undefined	1
<b>cot</b>	Undefined	$\sqrt{3}$	1	$\frac{\sqrt{3}}{3}$	0	Undefined	0	Undefined

### Circular Functions:

$$\sin \theta = \frac{y}{r}$$

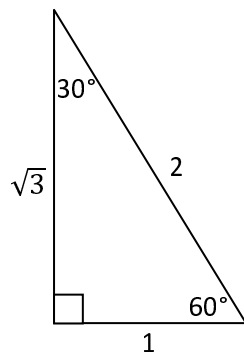
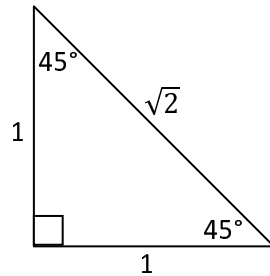
$$\cos \theta = \frac{x}{r}$$

$$\tan \theta = \frac{y}{x}$$

$$\csc \theta = \frac{r}{y}$$

$$\sec \theta = \frac{r}{x}$$

$$\cot \theta = \frac{x}{y}$$



### Right Triangle Trigonometry:

$$\sin \theta = \frac{\text{opp.side}}{\text{hyp.}}$$

$$\cos \theta = \frac{\text{adj.side}}{\text{hyp.}}$$

$$\tan \theta = \frac{\text{opp.side}}{\text{adj.side}}$$

$$\csc \theta = \frac{\text{hyp.}}{\text{opp.side}}$$

$$\sec \theta = \frac{\text{hyp.}}{\text{adj.side}}$$

$$\cot \theta = \frac{\text{adj.side}}{\text{opp.side}}$$