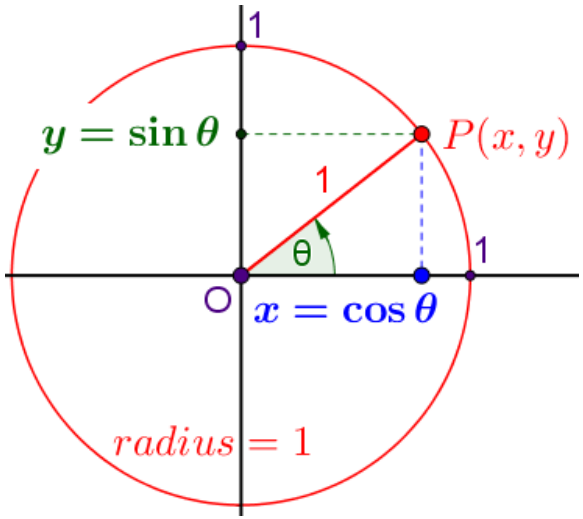
Revision: Trigonometry in a nutshell



Angles are counted counterclockwise from the positive x-axis.

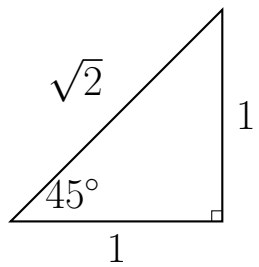
1. The x-coordinate of P is $\cos\theta$.
2. The y-coordinate of P is $\sin\theta$.
3. $\tan\theta$ is the gradient of the straight line OP.

$$m = \tan\theta = \frac{\sin\theta}{\cos\theta} = \frac{y}{x}$$

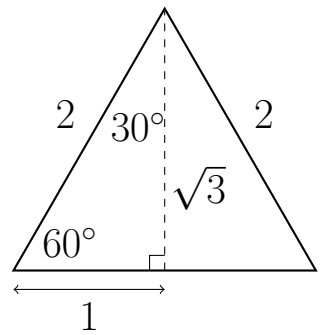
The Exact values you need to know:

θ	$\frac{\pi}{6}$ or $30°$	$\frac{\pi}{4}$ or $45°$	$\frac{\pi}{3}$ or $60°$
$\sin\theta$	$\frac{1}{2}$	$\frac{1}{\sqrt{2}}$	$\frac{\sqrt{3}}{2}$
$\cos\theta$	$\frac{\sqrt{3}}{2}$	$\frac{1}{\sqrt{2}}$	$\frac{1}{2}$
$\tan\theta$	$\frac{1}{\sqrt{3}}$	1	$\sqrt{3}$

The Isosceles Right Triangle



The 30/60 Triangle



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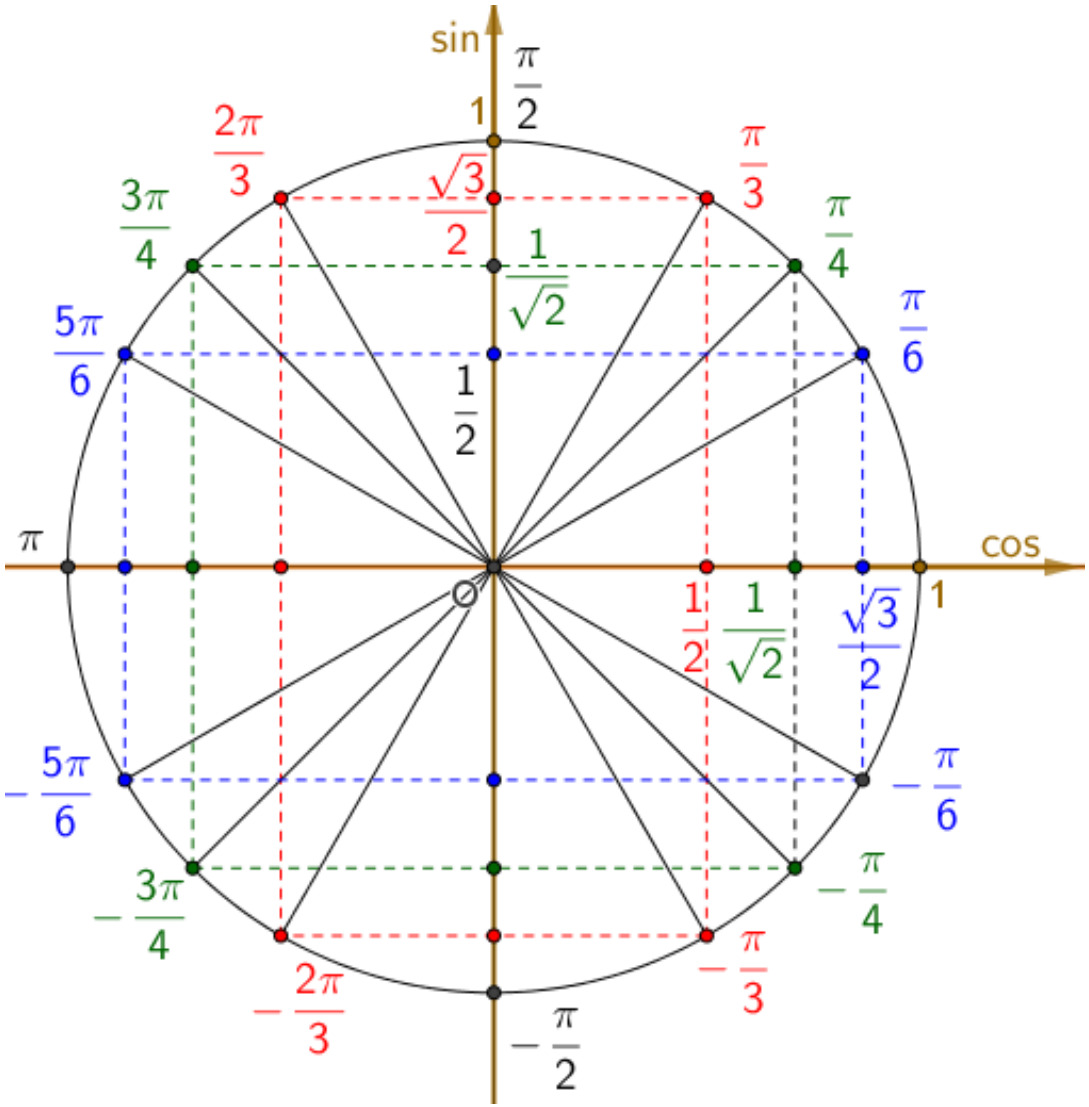

In the first quadrant are the exact values you need to know.