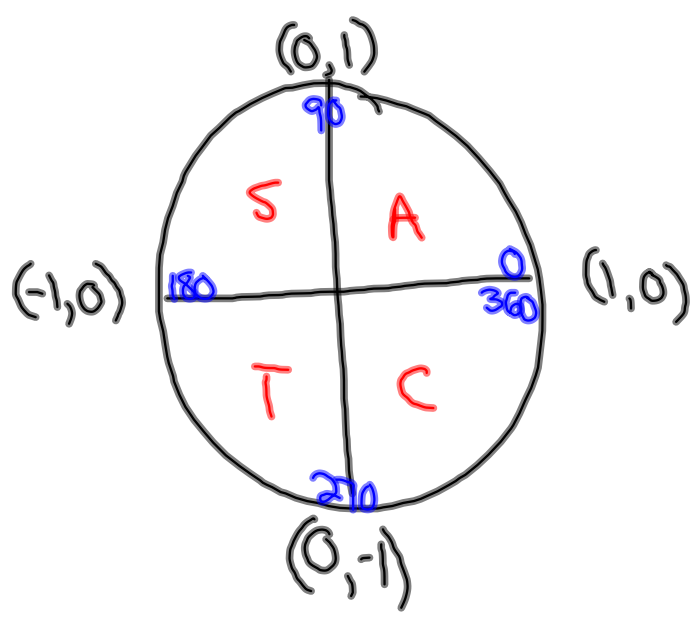
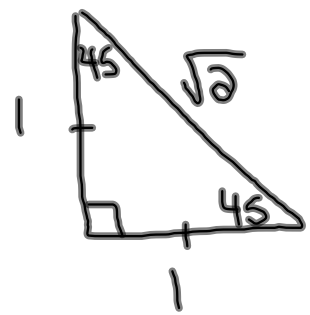
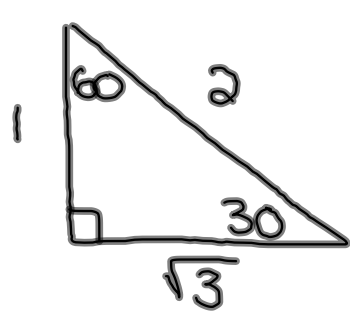
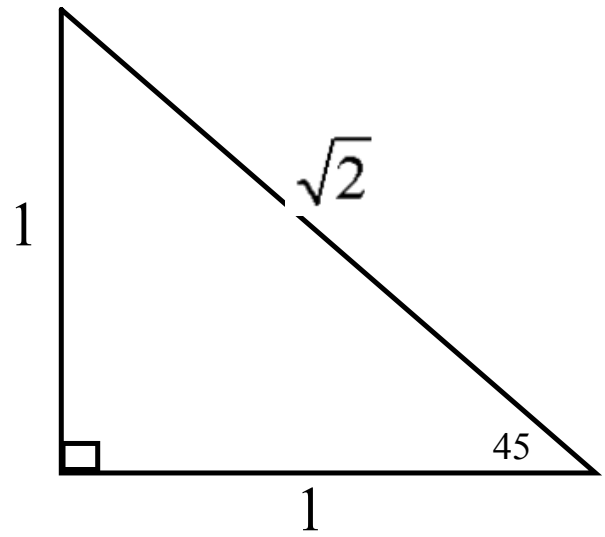
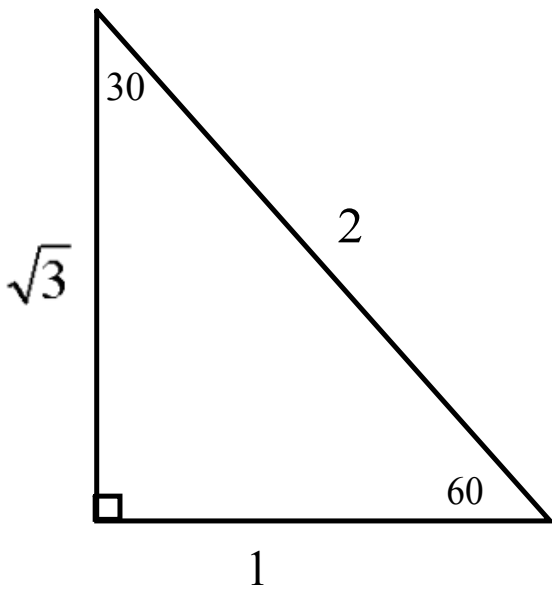


Warm-Up

Draw the special angle triangles and the unit circle.



Quiz



Special Angles

	30	60
Sin	$\frac{1}{2}$	$\frac{\sqrt{3}}{2}$
Cos	$\frac{\sqrt{3}}{2}$	$\frac{1}{2}$
Tan	$\frac{\sqrt{3}}{3}$	$\sqrt{3}$

	45
Sin	$\frac{\sqrt{2}}{2}$
Cos	$\frac{\sqrt{2}}{2}$
Tan	1

Quadrantal Angles

	0°	90°	180°	270°	360°
sin y	0	1	0	-1	0
cos x	1	0	-1	0	1
tan y/x	0	undefined	0	undefined	0

Calculate the following!

$$\sin 60^\circ + \cos 30^\circ$$

$$\frac{\sqrt{3}}{2} + \frac{\sqrt{3}}{2}$$

$$\frac{2\sqrt{3}}{2}$$

$$\boxed{\sqrt{3}}$$

$$\sin^2 30^\circ + \cos 45^\circ - \cos 90^\circ$$

$$\left(\frac{1}{2}\right)^2 + \frac{\sqrt{2}}{2} - 0$$

$$\frac{1}{4} + \frac{2\sqrt{2}}{4}$$

$$\boxed{\frac{1 + 2\sqrt{2}}{4}}$$

$$\sin^2 60^\circ - \csc 30^\circ \sec^2 45^\circ + \sec 180^\circ$$

$$\left(\frac{\sqrt{3}}{2}\right)^2 - \left(\frac{2}{1}\right)\left(\frac{\sqrt{2}}{1}\right)^2 + (-1)$$

$$\frac{3}{4} - (2)(2) - 1$$

$$\frac{3}{4} - 4 - 1$$

$$\frac{3}{4} - 5$$

$$\frac{3}{4} - \frac{20}{4}$$

$$\boxed{\frac{-17}{4}}$$

And now for the grand finale...if you can handle this one, you should give yourself a nice pat on the back.

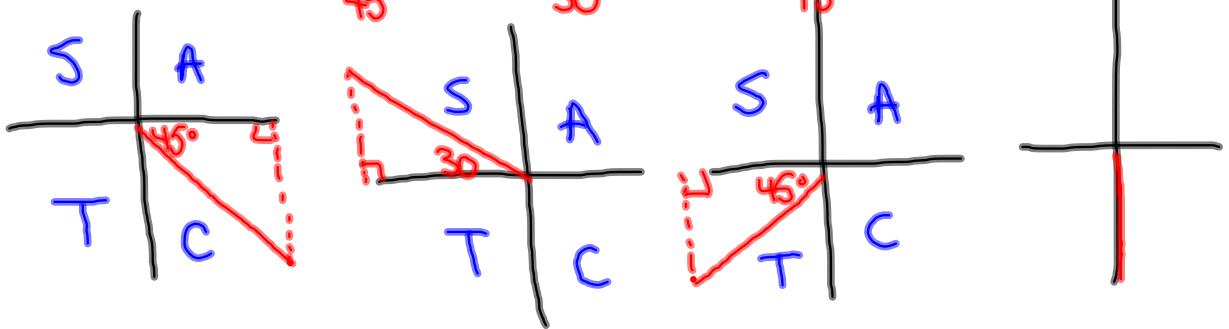
* Reference angle in red



Without a calculator determine the value of...

$$\sec^2 315^\circ - \sin(-210^\circ) + 2\cot^2 585^\circ \sin(-450^\circ)$$

P.A. 150°
P.A. 225°
P.A. 270°



$$\left(\frac{+\sqrt{2}}{1}\right)^2 - \left(\frac{+1}{2}\right) + 2\left(\frac{+1}{1}\right)^2(-1)$$

$$2 - \frac{1}{2} + 2(1)(-1)$$

$$2 - \frac{1}{2} - 2$$

$$\boxed{-\frac{1}{2}}$$

$$\frac{\sin 60}{\cos 30}$$

$$\frac{4 \sin 30}{\sin 90 + 2 \cos 60}$$

$$\frac{2\sin 210}{\sin 90 + 2\cos 120}$$