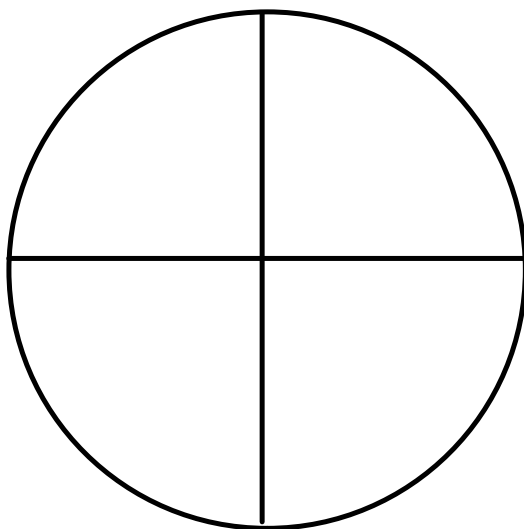
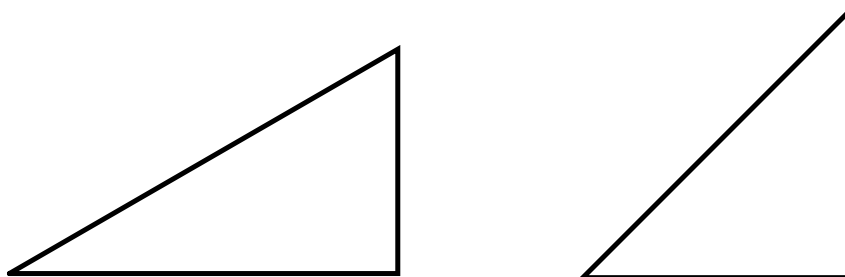


## Questions from Homework

**Warm-Up**

Draw the special angle triangles and the unit circle.



## Special Angles

	30 ( $\frac{\pi}{6}$ )	60 ( $\frac{\pi}{3}$ )
<b>Sin</b>	$\frac{1}{2}$	$\frac{\sqrt{3}}{2}$
<b>Cos</b>	$\frac{\sqrt{3}}{2}$	$\frac{1}{2}$
<b>Tan</b>	$\frac{1}{\sqrt{3}} = \frac{\sqrt{3}}{3}$	$\sqrt{3}$

	45 ( $\frac{\pi}{4}$ )
<b>Sin</b>	$\frac{1}{\sqrt{2}} = \frac{\sqrt{2}}{2}$
<b>Cos</b>	$\frac{1}{\sqrt{2}} = \frac{\sqrt{2}}{2}$
<b>Tan</b>	1

## Quadrantal Angles

	$0^\circ$ (0)	$90^\circ$ ( $\frac{\pi}{2}$ )	$180^\circ$ ( $\pi$ )	$270^\circ$ ( $\frac{3\pi}{2}$ )	$360^\circ$ ( $2\pi$ )
sin (y)	0	1	0	-1	0
cos (x)	1	0	-1	0	1
tan ( $\frac{y}{x}$ )	0	undefined	0	undefined	0

**Evaluate the following!**

No Sketches required!

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

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

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

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

$$\frac{3}{4} - \frac{5}{1}$$

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

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

**Evaluate the following!**

$$\frac{2 \sin 7\pi/6}{\sin \pi/2 + 2 \cos 2\pi/3}$$

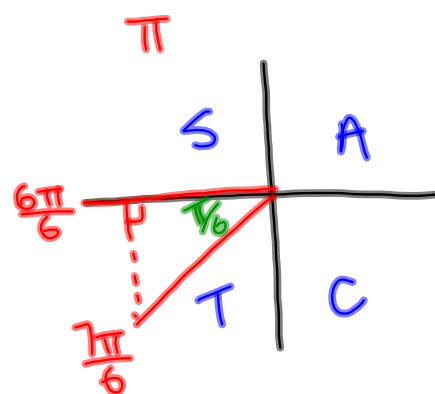
$$\frac{2\left(-\frac{1}{2}\right)}{(1) + 2\left(-\frac{1}{2}\right)}$$

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

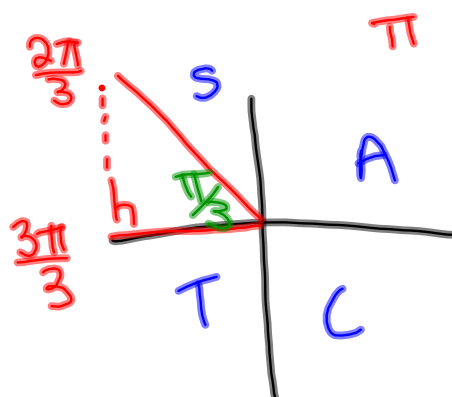
$$\frac{-1}{0}$$

undefined

Sketch:  $\frac{6\pi}{6}, \frac{7\pi}{6}, \frac{8\pi}{6}$



$\frac{\pi}{3}, \frac{2\pi}{3}, \frac{3\pi}{3}$

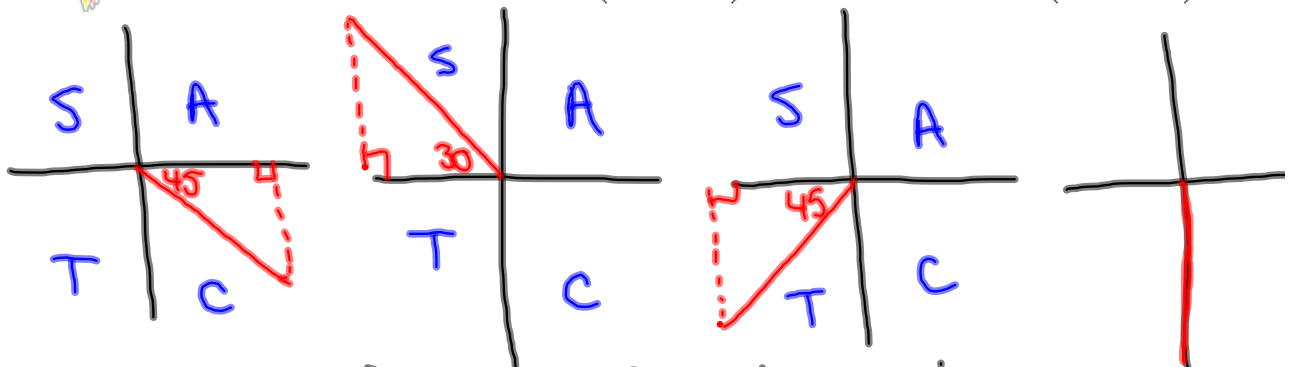


And now for the grand finale...if you can handle this one, you should give yourself a nice pat on the back.



Without a calculator determine the value of ...

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



$$\sec^2 315^\circ - \sin 150^\circ + 2\cot^2 225^\circ \sin 270^\circ$$

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

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

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

# Homework





## Attachments

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Trig Expressions Review #2.pdf