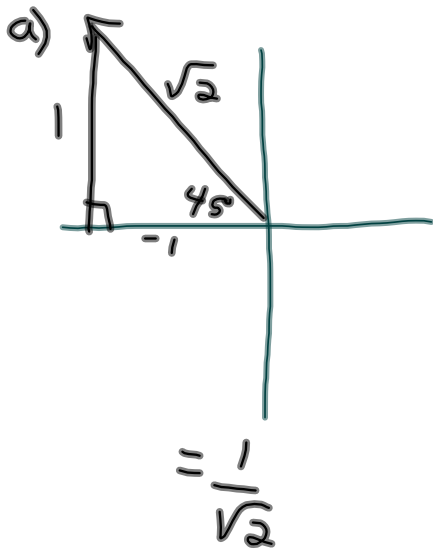
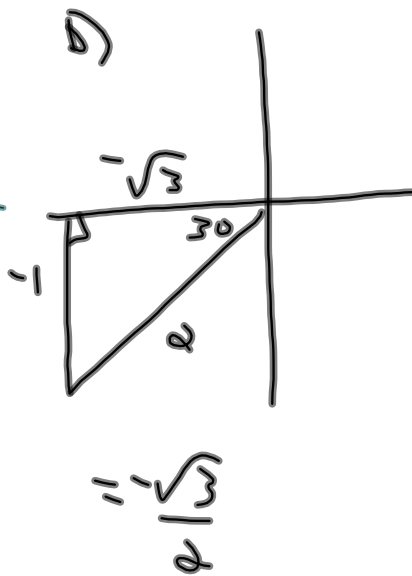


Determine an exact value for

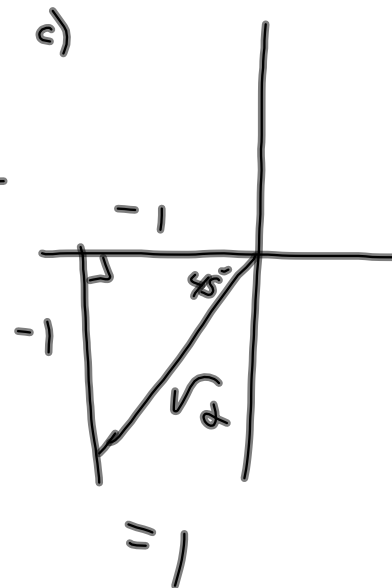
a. $\text{Sine } 135^\circ$



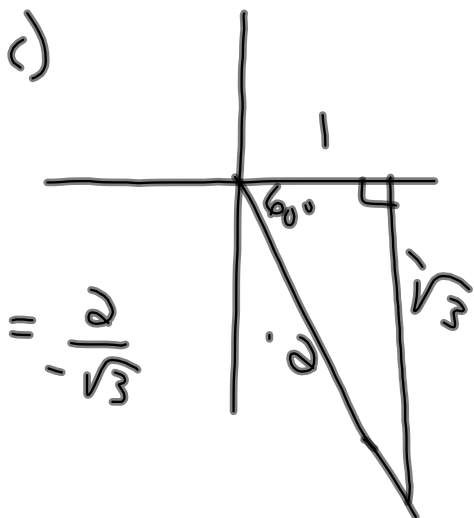
b. $\text{Cos } 210^\circ$



c. $\text{Tan } 225^\circ$

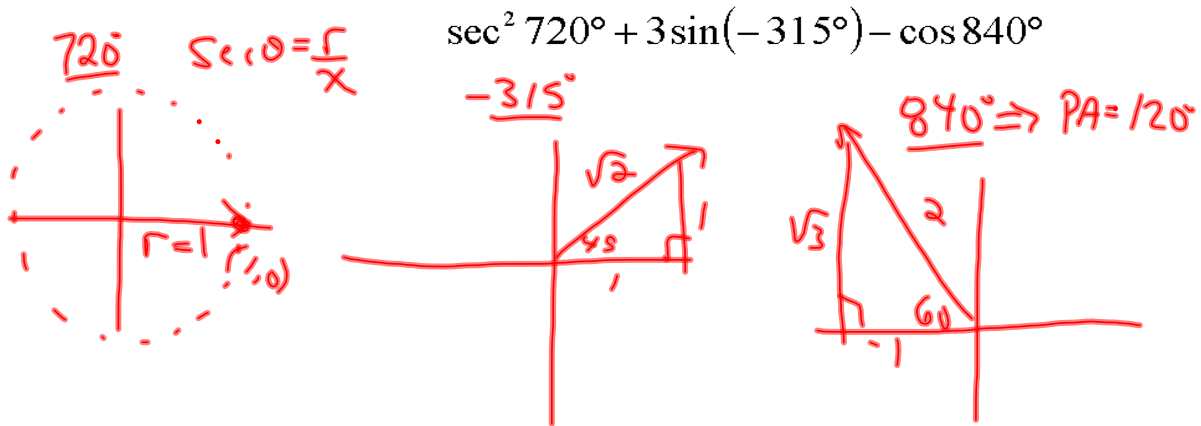


d. $\text{Csc } 300^\circ$



Extend the special angles into all FOUR quadrants

Without a calculator determine the value of...



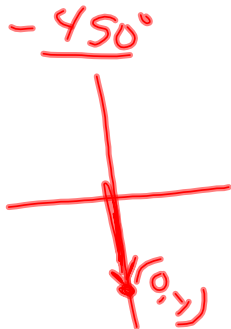
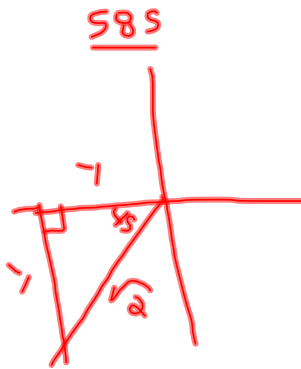
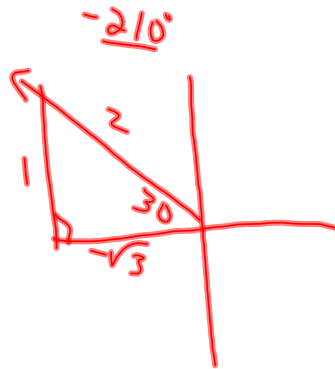
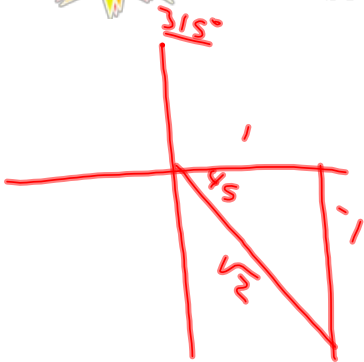
$$\begin{aligned}
 &= (1)^2 + 3\left(\frac{1}{\sqrt{2}}\right) - \left(-\frac{1}{2}\right) \\
 &= \frac{1}{1} + \frac{3}{\sqrt{2}} + \frac{1}{2} \\
 &= \frac{2\sqrt{2} + 6 + \sqrt{2}}{2\sqrt{2}} \\
 &= \frac{3\sqrt{2} + 6}{2\sqrt{2}} \left(\frac{\sqrt{2}}{\sqrt{2}}\right) \\
 &= \frac{6 + 6\sqrt{2}}{4} \\
 &= \frac{3 + 3\sqrt{2}}{2}
 \end{aligned}$$

If you can handle this one, the world is good !!



Without a calculator determine the value of ...

$$\sec^2 315^\circ - \sin(-210^\circ) + 2 \cot^2 585^\circ \sin(-450^\circ) = -\frac{1}{2}$$



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

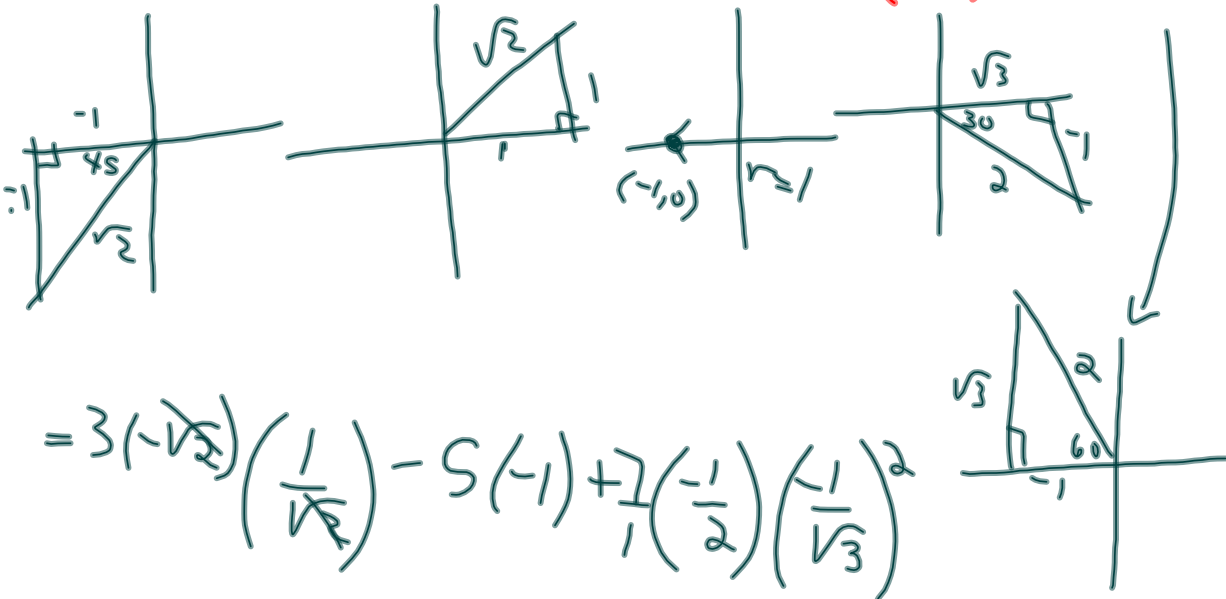
$$= 2 - \frac{1}{2} + -2$$

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

Evaluate the following without using the trigonometric functions on a calculator:

$$3 \csc(2745^\circ) \cos(-2115^\circ) - 5 \sec(1620^\circ) + 7 \sin(-2190^\circ) \cot^2(840^\circ)$$

$\text{PA} = 225$ (-315°) (180°) (-30°) (120°)



$$= 3(-\sqrt{2}) \left(\frac{1}{\sqrt{2}}\right) - 5(-1) + 7\left(-\frac{1}{2}\right) \left(\frac{1}{\sqrt{3}}\right)^2$$

$$= -3 + 5 + \frac{-7}{6}$$

$$= \frac{2}{1} - \frac{7}{6}$$

$$= \frac{12}{6} - \frac{7}{6}$$

6

Practice problems...

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#3, 4, 5, 6, 7, 8, 11, 12, 13, 16, 18, 29

Bonus

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