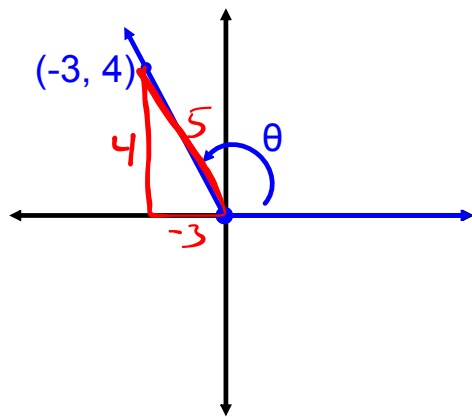


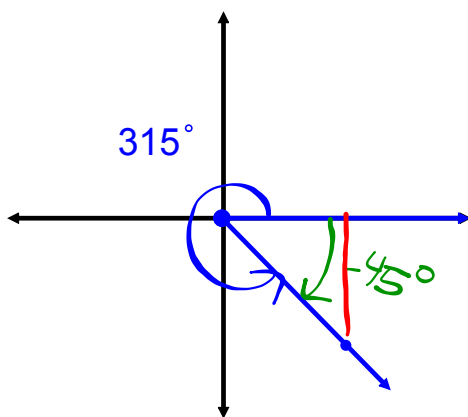
Warm-up 1/18/17

Evaluate the six trigonometric functions for θ .

$$\sin \theta = \frac{4}{5} \quad \csc \theta = \frac{5}{4}$$

$$\cos \theta = -\frac{3}{5} \quad \sec \theta = -\frac{5}{3}$$

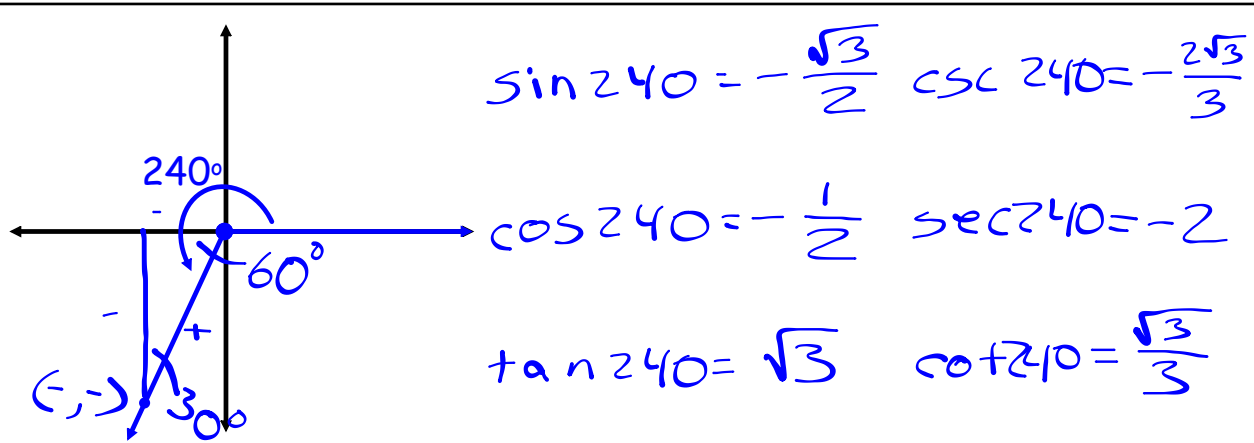
$$\tan \theta = -\frac{4}{3} \quad \cot \theta = -\frac{3}{4}$$

Find the six trigonometric functions of 315° .

$$\sin 315 = -\frac{\sqrt{2}}{2} \quad \csc 315 = -\sqrt{2}$$

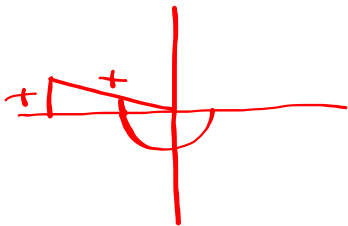
$$\cos 315 = \frac{\sqrt{2}}{2} \quad \sec 315 = \sqrt{2}$$

$$\tan 315 = -1 \quad \cot 315 = -1$$

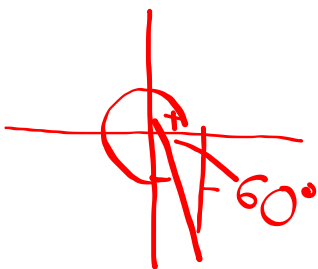


Find the exact value of each trig function without a calculator.

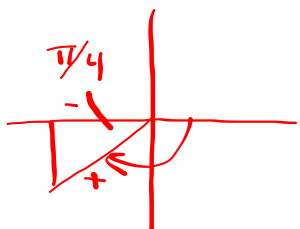
1. $\sin(-210^\circ) = \frac{1}{2}$



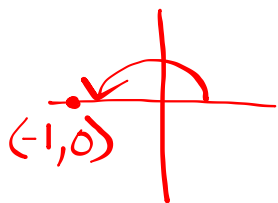
2. $\tan(300^\circ) = -\sqrt{3}$



$$3. \sec\left(-\frac{3\pi}{4}\right) = \frac{1}{\cos\left(-\frac{3\pi}{4}\right)} = \frac{1}{-\frac{\sqrt{2}}{2}} = -\sqrt{2}$$

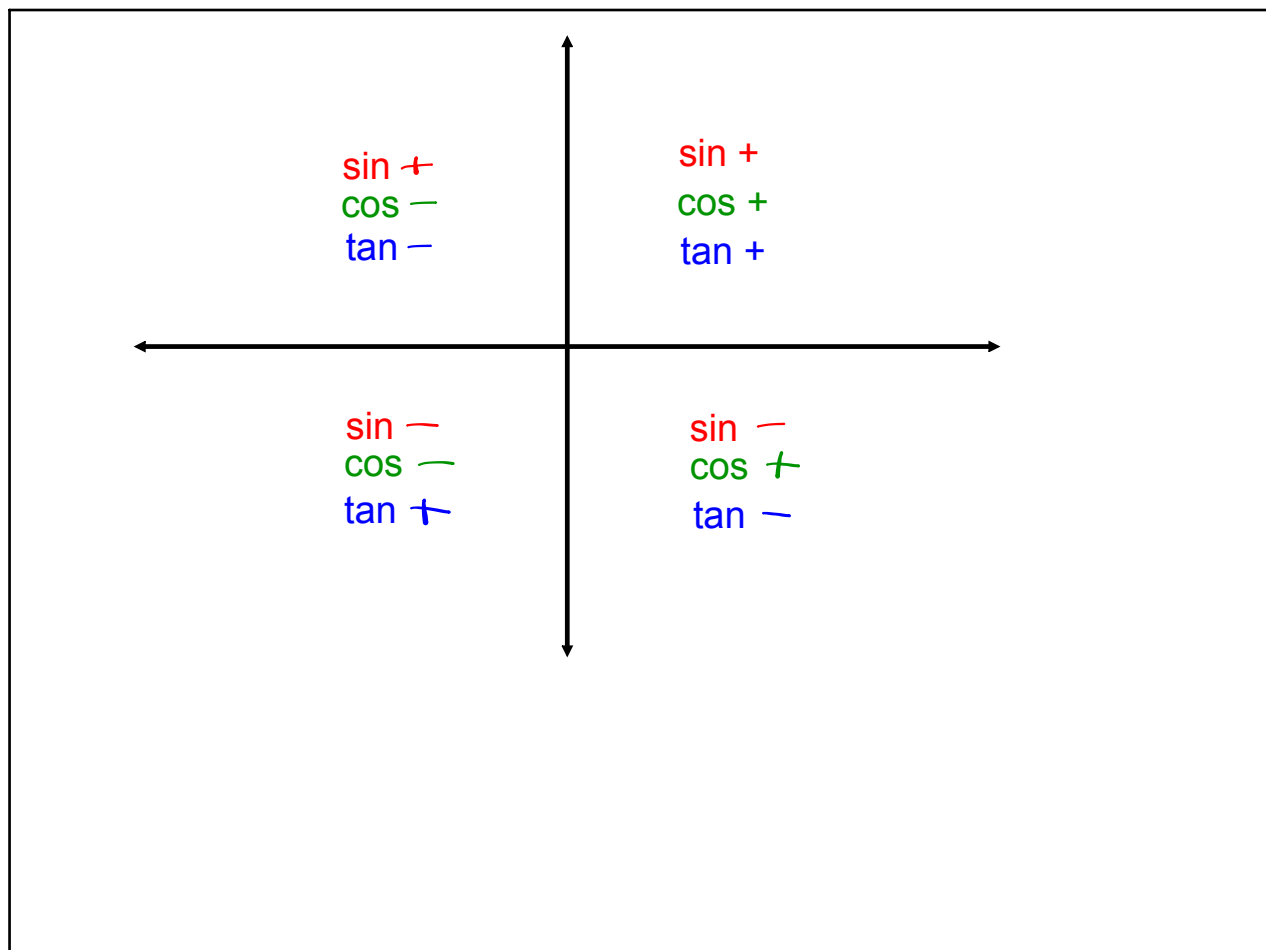


$$4. \cos 180^\circ = \frac{-1}{1} = -1$$



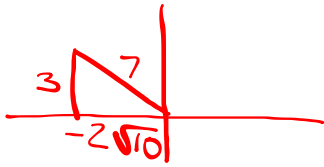
$$r = \sqrt{(-1)^2 + 0^2}$$

$$r = 1$$



Find $\cos \theta$ and $\tan \theta$ by using the given information to construct a reference triangle.

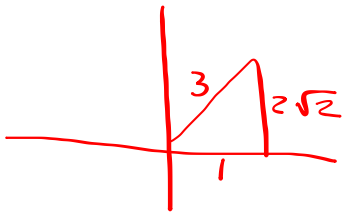
a) $\sin \theta = \frac{3}{7}$ and $\tan \theta < 0$



$$3^2 + b^2 = 7^2$$

$$b = \sqrt{40} = 2\sqrt{10}$$

b) $\sec \theta = 3$ and $\sin \theta > 0$



$$1^2 + b^2 = 3^2$$

$$b = \sqrt{8} = 2\sqrt{2}$$

$$\cos \theta = -\frac{2\sqrt{10}}{7}$$

$$\tan \theta = -\frac{3}{2\sqrt{10}} = -\frac{3\sqrt{10}}{20}$$

$$\cos \theta = \frac{1}{3}$$

$$\tan \theta = 2\sqrt{2}$$

Assignment: pp. 347 - 348

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