

Bell Work

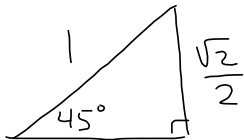
$$48 + \frac{30}{60} + \frac{36}{3600}$$

1. Convert to decimal form: $48^{\circ}30'36''$
 48.51°

2. Convert to degrees: $\frac{7\pi}{11} \left(\frac{180^{\circ}}{\pi} \right) = 114.54^{\circ}$

23)

$$\cos\left(\frac{\pi}{4}\right) = \frac{\sqrt{2}}{2}$$

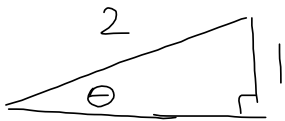


$$\frac{1}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}} = \frac{\sqrt{2}}{2}$$

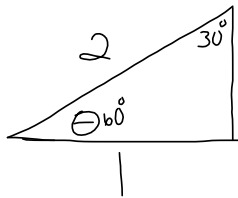
25) $\sec(45^\circ) = \sqrt{2}$

$$\frac{1}{\cos(45^\circ)} = 1.41$$

$$41) \sin \theta = \frac{1}{2} \frac{\text{opp}}{\text{hyp}}$$



$$\sec \theta = \frac{2}{1} = 2$$



$$72) a) \tan \theta =$$

$$b) \cos \theta = 3.14$$

$$c) \cot \theta =$$

$$d) \sec \theta =$$

$$e) \csc \theta =$$

$$71) \sin \theta = \frac{-1}{\sin \theta} = -\csc \theta$$

$$m=3 \quad \perp = -\frac{1}{3}$$

Quiz 4.2 A

Name _____

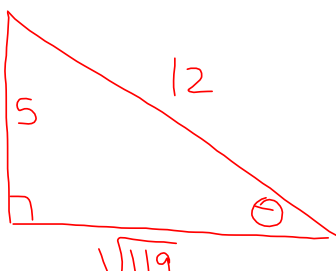
1. Given θ is an acute angle in a right triangle. Evaluate the remaining trig functions.

$$\frac{\text{opp}}{\text{hyp}} \quad \csc \theta = \frac{12^{\text{hyp}}}{5^{\text{opp}}}$$

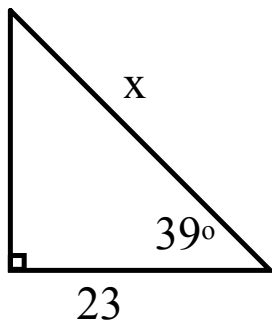
$$\sin \theta = \frac{5}{12}$$

$$\cos \theta = \frac{\sqrt{119}}{12}$$

$$\tan \theta = \frac{5}{\sqrt{119}} = \frac{5\sqrt{119}}{119}$$



2. Solve for the variable shown.



$$(x) \cos 39^\circ = \frac{23}{x}$$

$$x = \frac{23}{\cos 39^\circ}$$

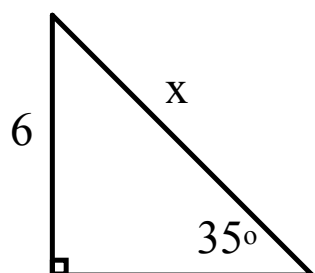
Quiz 4.2 B

Name _____

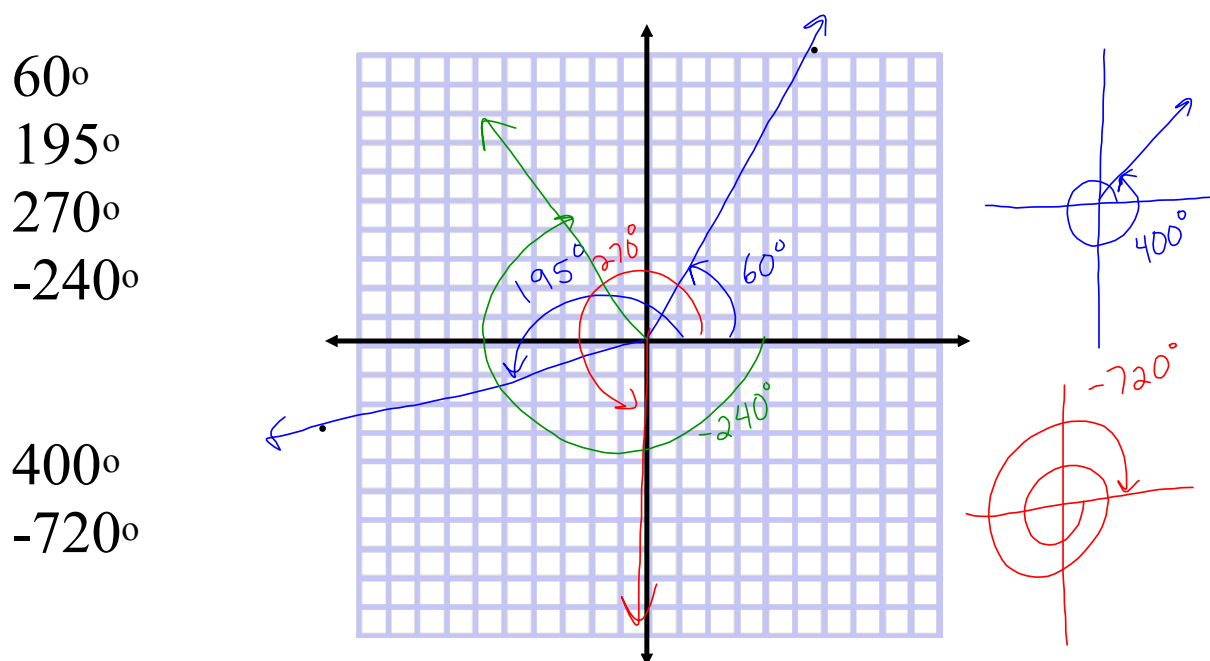
Given θ is an acute angle in a right triangle.
Evaluate the remaining trig functions.

$$\sec\theta = \frac{12}{5}$$

2. Solve for the variable shown.

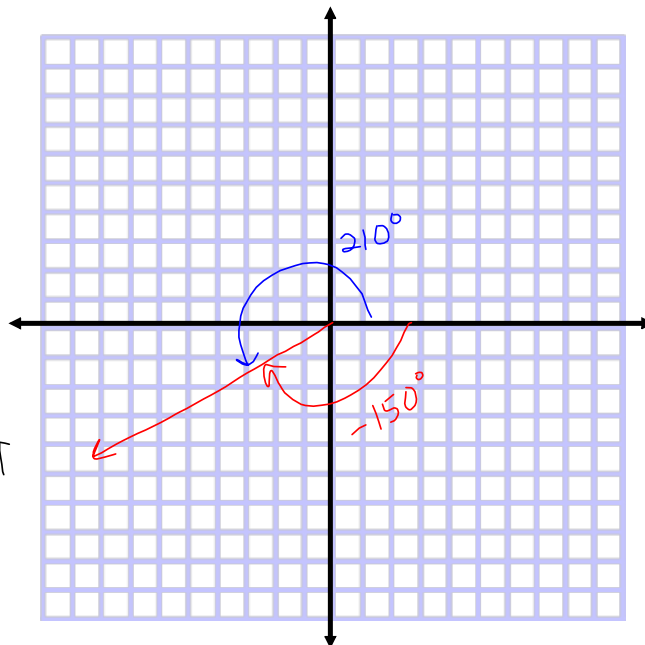


Graph the following angles in standard position.



Find to 2 angles (1 positive and 1 negative) that are coterminal with the given angles.

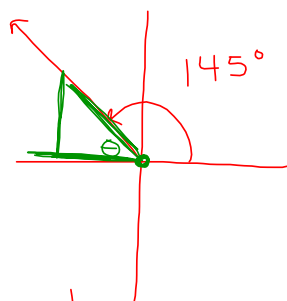
$$\begin{array}{l}
 -150^\circ \quad 210^\circ \\
 \frac{-360}{-510} \quad -510^\circ \\
 75^\circ \\
 \begin{array}{l} -285^\circ \\ 435^\circ \end{array} \\
 3\pi + 2\pi \quad 5\pi \\
 3\pi - 2\pi \quad \pi - 2\pi = -\pi \\
 \frac{2\pi}{3} + \frac{2\pi \cdot 3}{3 \cdot 1} = \frac{8\pi}{3} \\
 \frac{2\pi}{3} - \frac{2\pi \cdot 3}{3} = -\frac{4\pi}{3}
 \end{array}$$



Draw a reference triangle and state the reference angle for the given angles.

145°

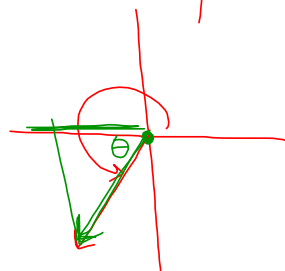
ref $\angle = 35^\circ$



Reference angle
 acute
 positive
 vertex @ origin
 | ray terminal side
 | ray x-axis

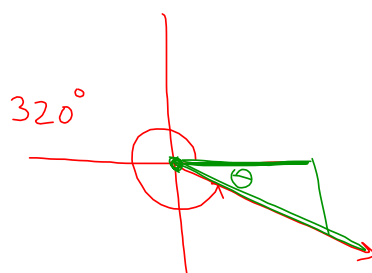
245°

$\theta = 65^\circ$



320°

$\theta = 40^\circ$



Graph the points and find the six trig functions

(3, 4)

$$\sin\theta = \frac{4}{5} \quad \tan\theta = \frac{4}{3} \quad \cot\theta = \frac{3}{4}$$

$$\cos\theta = \frac{3}{5} \quad \csc\theta = \frac{5}{4} \quad \sec\theta = \frac{5}{3}$$

(-6, -4)

$$\sin\theta = \frac{-4}{2\sqrt{13}} = \frac{-2}{\sqrt{13}} = -\frac{2\sqrt{13}}{13}$$

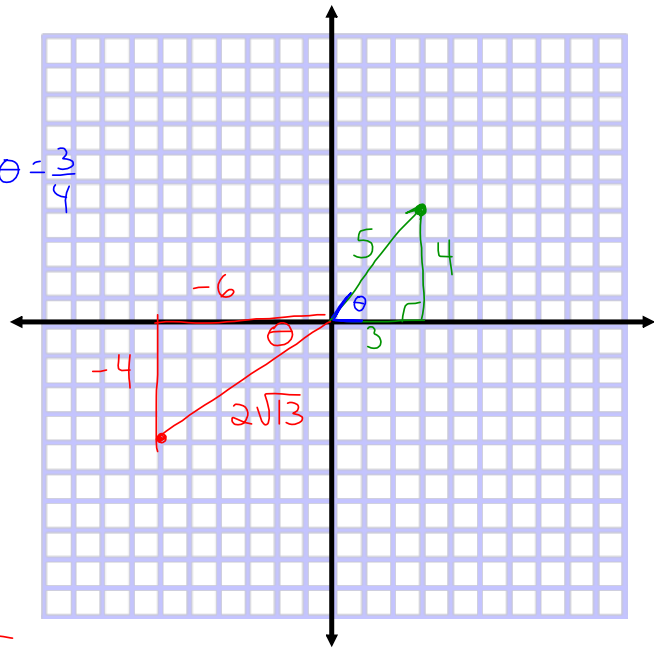
$$\cos\theta = \frac{-6}{2\sqrt{13}} = \frac{-3}{\sqrt{13}} = -\frac{3\sqrt{13}}{13}$$

$$\tan\theta = \frac{-4}{-6} = \frac{2}{3}$$

$$\csc\theta = -\frac{\sqrt{13}}{2}$$

$$\sec\theta = -\frac{\sqrt{13}}{3}$$

$$\cot\theta = \frac{3}{2}$$



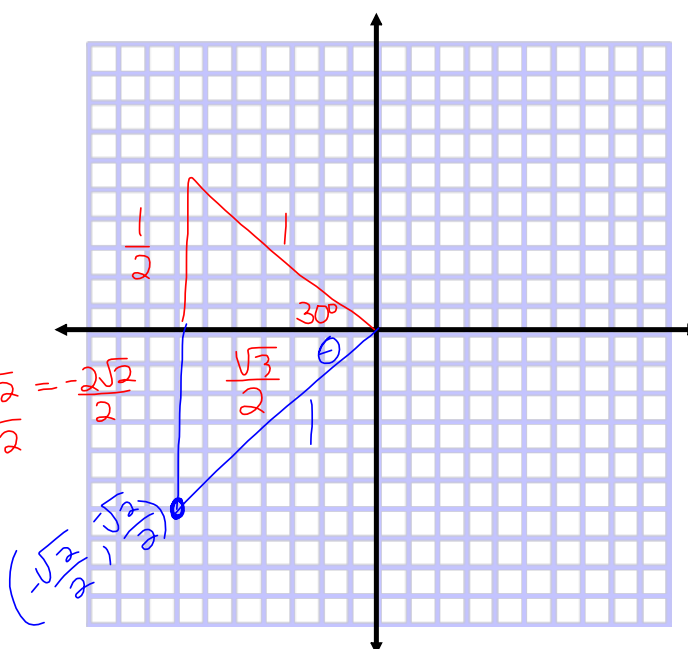
Find without using a calculator

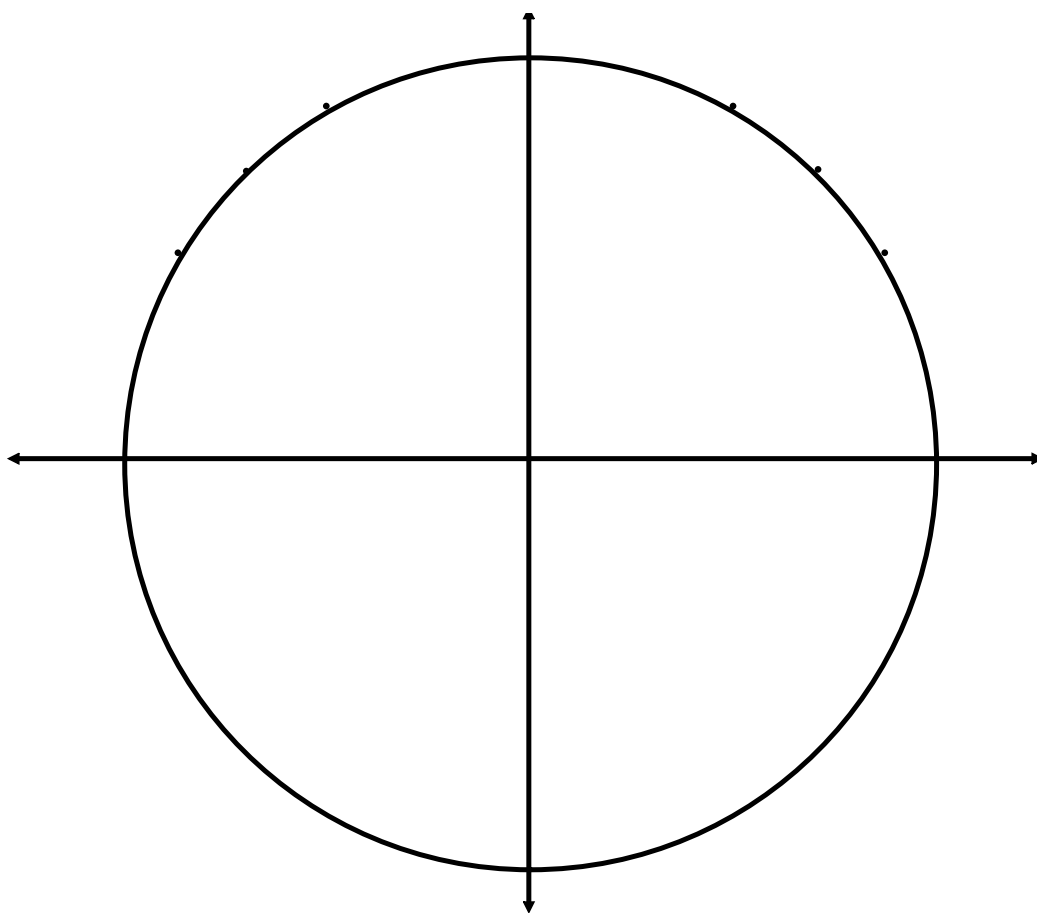
$$\sin(-210^\circ) = \frac{1}{2}$$

$$\tan(5\pi/4) = 1$$

$$\sec(-3\pi/4) = \frac{-2\sqrt{2}}{\sqrt{2}\sqrt{2}} = -\frac{2\sqrt{2}}{2}$$

$$-\sqrt{2}$$





Assignment:

Section 4.3 Pg. 380

QR: 1-10

EX: 1-59odd, 61-70

Unit Circle