

Name: Answer Key Per: _____ Date: _____
 Serafino • Precalculus

Unit 2 Angles / Trig Ratios in the Coordinate Plane

1.2-1.3 Review

1. Finding Reference Angles and Quadrants

θ	135	-240	315	-150	265	164	-179	400
θ'	45°	60°	45	30°	85°	16°	1°	40°
Quad	II	II	IV	III	III	II	III	I

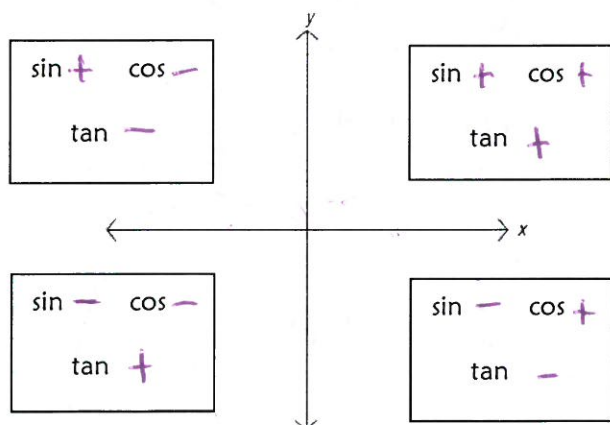
2. Name $0 \leq \theta < 360$ with special reference angles

θ'	QI	QII	QIII	QIV
30	30	150	210	330
45	45	135	225	315
60	60	120	240	300



$\tan \frac{y}{x} = \frac{\sin}{\cos}$
 $\cot = \frac{x}{y} = \frac{\cos}{\sin}$

3. Name the sign (\pm) of each ratio in the Quadrant.



4. Name the reciprocal identities you know:

$\sin = \frac{1}{\csc}$ $\csc = \frac{1}{\sin}$

$\cos = \frac{1}{\sec}$ $\sec = \frac{1}{\cos}$

$\tan = \frac{1}{\cot}$ $\cot = \frac{1}{\tan}$

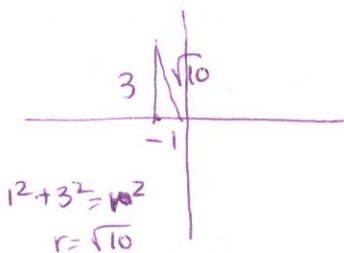
$\tan = \frac{\sin}{\cos}$ $\cot = \frac{\cos}{\sin}$

5. Let's play everyone's favorite game.... Name the Quadrant(s) or Quadrantal Angle(s)!

- A. Sine is positive I, II
- B. Cosine is negative II, III
- C. Cotangent is positive I, III
- D. Cosecant is negative III, IV
- E. Sine is positive & Secant is negative II
- F. Cosecant is negative & Tangent is negative IV
- G. Cosine is positive & Sine is negative IV
- H. Tangent is positive & Secant is positive I
- I. Cotangent is undefined $0^\circ, 180^\circ$
- J. Secant is undefined $90^\circ, 270^\circ$
- K. Cosine is -1 180°
- L. Tangent is 0 $0^\circ, 180^\circ$
- M. Sine is 0, Cosine is 1 0°
- N. Cosecant is undefined & Secant is -1 180°
- O. Cosecant is 1. 90°
- P. Secant is undefined & Cosecant is Negative 270°

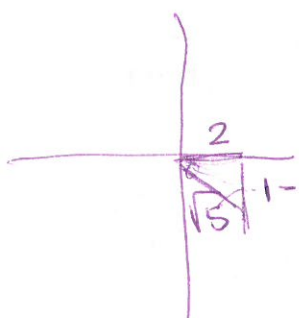


6. A point on the terminal side of θ is $(-1, 3)$. Find the other six trig ratios of θ .



$$\begin{aligned} \sin \theta &= \frac{3\sqrt{10}}{10} & \cos &= \frac{-\sqrt{10}}{10} & \tan &= -3 \\ \csc \theta &= \frac{\sqrt{10}}{3} & \sec &= -10 & \cot &= \frac{-1}{3} \end{aligned}$$

7. The tan of $\theta = -1/2$ in QIV. Find the other six trig ratios of θ .



$$\begin{aligned} \sin &= \frac{-\sqrt{5}}{5} & \cos &= \frac{2\sqrt{5}}{5} & \tan &= \frac{-1}{2} \\ \csc &= -\sqrt{5} & \sec &= \frac{\sqrt{5}}{2} & \cot &= -2 \end{aligned}$$