

Name _____

Date _____

Chapter 9

Advanced Algebra- Assignment #3

Chapter 8- Parametric Equation and Trigonometry (Page 424-483)

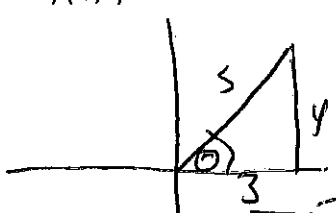
Section 8.3

Drawing Angles

** Make sure your signs are correct! **

Draw a picture for the given angle, θ , that has a terminal side as the given point. You then determine the sine, cosine, and tangent for your picture.

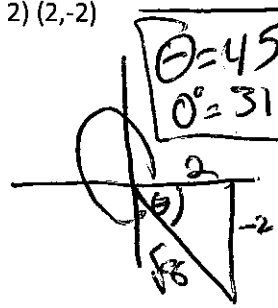
1) (3,4)



$\theta = 53.1^\circ$

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

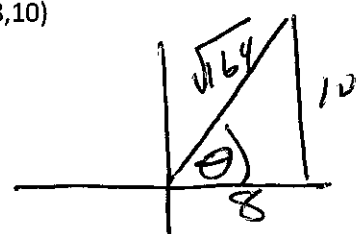
2) (2,-2)



$\theta = 45^\circ$
 $\theta = 315^\circ$

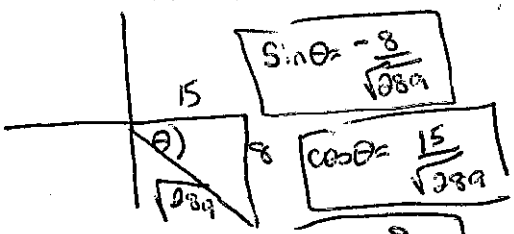
$\sin \theta = -\frac{2}{\sqrt{8}}$
 $\cos \theta = \frac{2}{\sqrt{8}}$
 $\tan \theta = -1$

3) (8,10)



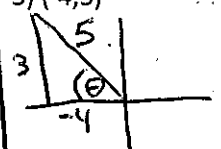
$\sin \theta = \frac{10}{\sqrt{164}}$
 $\cos \theta = \frac{8}{\sqrt{164}}$
 $\tan \theta = \frac{10}{8}$
 $\theta = 51.3^\circ$

4) (15,-8)



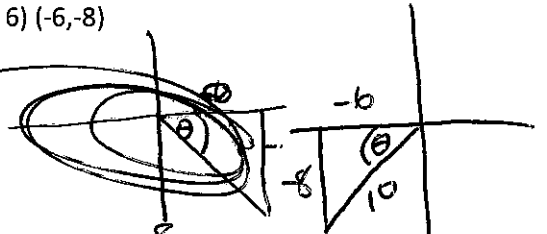
$\sin \theta = -\frac{8}{\sqrt{289}}$
 $\cos \theta = \frac{15}{\sqrt{289}}$
 $\tan \theta = -\frac{8}{15}$

5) (-4,3)



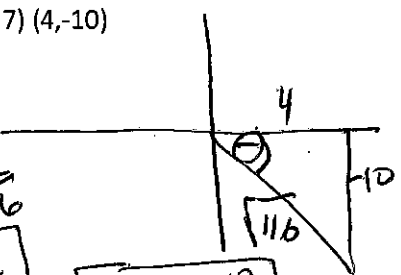
$\sin \theta = \frac{3}{5}$
 $\cos \theta = -\frac{4}{5}$
 $\tan \theta = -\frac{3}{4}$

6) (-6,-8)



$\sin \theta = -\frac{8}{10}$
 $\cos \theta = -\frac{6}{10}$
 $\tan \theta = \frac{8}{6}$

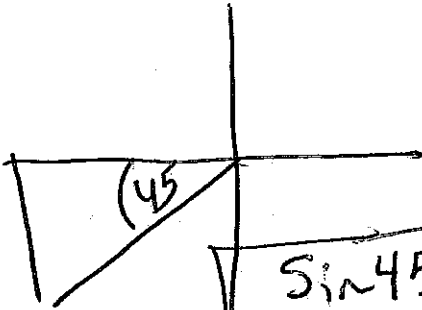
7) (4,-10)



$\sin \theta = -\frac{10}{\sqrt{116}}$
 $\cos \theta = \frac{4}{\sqrt{116}}$
 $\tan \theta = -\frac{10}{4}$

Draw a picture of the following angles and show the reference angle. Remember the reference angle is the acute angle that goes back to the X AXIS. You then determine the sine, cosine, and tangent for your picture.

8) $\sin 225$



$\sin 45 = -\sin 225$

Reference angle is: 45

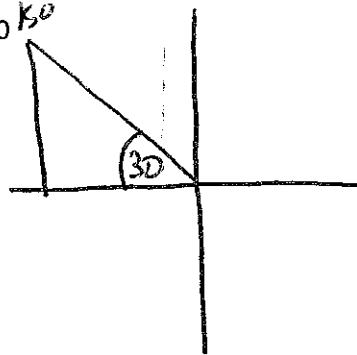
10) $\sin (-30)$

Reference angle is: _____

12) $\sin (405)$

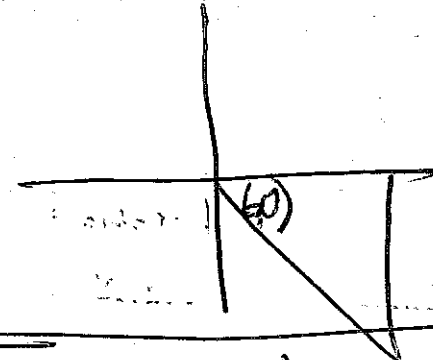
Reference angle is: _____

9) $\cos 150$



Reference angle is: _____

11) $\tan (-60)$



$\tan -60 = -\tan 60 = \tan 30$

Reference angle is: 60

13) $\tan (300)$

Reference angle is: _____