College Algebra

Name: KEY

5.3 Practice

Date: _____ Period: _____

Find the reference angle for the following angles.

1.) 510°

30°

2.) -125°

55°

3.) 4.5

1.36

4.) 315°

45°

5.) $\frac{3\pi}{4}$

$\pi/4$

6.) 30°

30°

7.) -723°

3°

8.) 75°

75°

9.) 240°

60°

10.) 1.2

1.2

11.) 160°

20°

12.) $\frac{\pi}{12}$

$\pi/12$

13.) 235°

55°

14.) 0.6

0.6

15.) -340°

20°

16.) $\frac{7\pi}{6}$

$\pi/6$

17.) 650°

70°

18.) 7

.72

Convert each degree measure to radians and each radian measure to degrees.

19.) 325°

$\frac{65\pi}{36}$

20.) 9.1

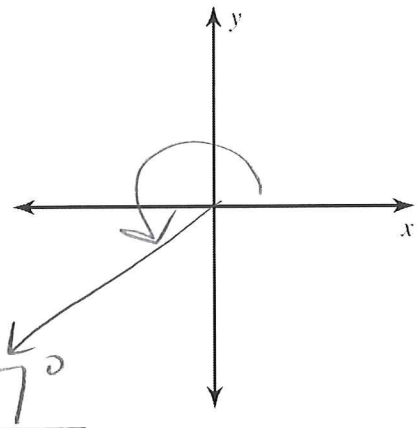
521.39°

21.) $-315°$

$-\frac{7\pi}{4}$

Sketch the angle in standard position. Don't forget to draw an arrow for the direction. Then state one positive and one negative angle that are co-terminal to the angle given.

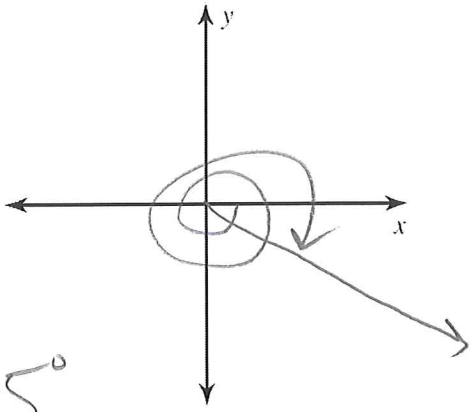
22.) 247°



Positive: 607°

Negative: −113°

23.) $-735°$



Positive: 345°

Negative: −375°

Find the values of the six trigonometric functions with the given information.

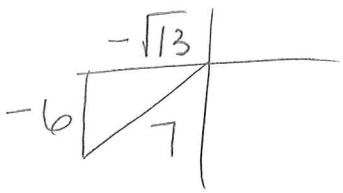
24.) $(3, -2\sqrt{5})$

$3^2+(-2\sqrt{5})^2$

$9+20=\sqrt{29}$

$\sin\theta = \frac{-2\sqrt{5}}{\sqrt{29}}$	$\csc\theta = \frac{\sqrt{29}}{-2\sqrt{5}}$
$\cos\theta = \frac{3}{\sqrt{29}}$	$\sec\theta = \frac{\sqrt{29}}{3}$
$\tan\theta = \frac{-2\sqrt{5}}{3}$	$\cot\theta = \frac{3}{-2\sqrt{5}}$

25.) $\sin\theta = -\frac{6}{7}$ $\quad \pi < \theta < \frac{3\pi}{2}$



$x^2+36=49$

$x=\sqrt{13}$

$\sin\theta = \frac{-6}{7}$	$\csc\theta = \frac{-7}{6}$
$\cos\theta = \frac{-\sqrt{13}}{7}$	$\sec\theta = \frac{-7}{\sqrt{13}}$
$\tan\theta = \frac{6}{\sqrt{13}}$	$\cot\theta = \frac{\sqrt{13}}{6}$