

PreCalculus '14-15
Trig Basics Test – Form A

Directions: Round at 3 decimal places.
Show all work.

1. $(12, -11)$ is on the terminal side of A. Find the six exact trig values:

$$\sin A = \quad \cos A =$$

$$\tan A = \quad \cot A =$$

$$\sec A = \quad \csc A =$$

2. $\sin B = -\frac{8}{17}$ in Quadrant III. Find the other five exact trig values:

$$\sin B = -\frac{8}{17} \quad \cos B =$$

$$\tan B = \quad \cot B =$$

$$\sec B = \quad \csc B =$$

3. $\tan C = -\frac{4}{3}$ in Quadrant II. Find the other five exact trig values:

$$\sin C = \quad \cos C =$$

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

$$\sec C = \quad \csc C =$$

4. Find the approximate values, in degrees, of A, B, and C above.

$$A = \underline{\hspace{2cm}}$$

$$B = \underline{\hspace{2cm}}$$

$$C = \underline{\hspace{2cm}}$$

Name _____

Score _____

5. Find the approximate values of:

$$\cos 145^\circ =$$

$$\sin 896^\circ =$$

$$\tan 5.46^\circ =$$

$$\sec -1.781^\circ =$$

$$\csc 26^\circ =$$

$$\cot 973^\circ =$$

6. Find the approximate values (in degrees) of:

$$\cos^{-1}(-.354) = \left\{ \right.$$

$$\sin^{-1}.913 = \left\{ \right.$$

$$\tan^{-1} -3.08 = \left\{ \right.$$

$$\sec^{-1}(-1.342) = \left\{ \right.$$

$$\csc^{-1} 7.642 = \left\{ \right.$$

8. If $\vec{s} = 4\vec{i} - 21\vec{j}$ and $\vec{r} = 12\vec{i} - 5\vec{j}$, find:

a. $2\vec{s} - 3\vec{r}$

b. $|\vec{r} - 4\vec{s}|$

c. The unit vector in the direction \vec{r}

8. A boat sails 31 mph at a bearing of 133° . The current flows 6 mph at 215° . Find the magnitude and bearing of the resultant vector.

9. Identify the Quadrant and reference angle of each of these:

a. 485° Q _____ $\theta_{\text{ref}} =$ _____

b. -172° Q _____ $\theta_{\text{ref}} =$ _____

c. 14537° Q _____ $\theta_{\text{ref}} =$ _____

d. -1231° Q _____ $\theta_{\text{ref}} =$ _____