

PreCalculus '14-15
Trig Basics Test – Form B

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

1. $(13, -7)$ 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. $\sin B = -\frac{12}{19}$ in Quadrant III. Find the other five exact trig values:

$$\sin B = -\frac{12}{19} \quad \cos B =$$

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

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

3. $\cot C = -\frac{15}{8}$ in Quadrant II. Find the other five exact trig values:

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

$$\cot C = \quad \cot C = -\frac{15}{8}$$

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

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:

$$\cos 15^\circ =$$

$$\sin 916^\circ =$$

$$\tan 13.46^\circ =$$

$$\sec (-1781)^\circ =$$

$$\csc 126^\circ =$$

$$\cot 73^\circ =$$

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

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

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

$$\tan^{-1} -3.28 = \left\{ \right.$$

$$\sec^{-1} (-7.451) = \left\{ \right.$$

$$\csc^{-1} 2.682 = \left\{ \right.$$

8. If $\vec{s} = 4\vec{i} + 17\vec{j}$ and $\vec{r} = 24\vec{i} - 7\vec{j}$, 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 42 mph at a bearing of 333° . The current flows 8 mph at 15° . Find the magnitude and bearing of the resultant vector.

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

a. 583° Q _____ $\theta_{\text{ref}} =$ _____

b. -272° Q _____ $\theta_{\text{ref}} =$ _____

c. 5437° Q _____ $\theta_{\text{ref}} =$ _____

d. -2631° Q _____ $\theta_{\text{ref}} =$ _____