Precalculus Acc '18-'19 Name _____
Trig Basics Test

1. $(-4, -7)$ is on the terminal side of A. Find the six exact trig values:

$\sin A =$ $\csc A =$

$\cos A =$ $\sec A =$

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

2. If $\sin B = -5/9$ in QIV, find the other five exact trig values:

$\sin B = -5/9$ $\csc B =$

$\cos B =$ $\sec B =$

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

3. If $\tan B = 15/7$ in QIII, find the other five exact trig values:

$\sin B =$ $\csc B =$

$\cos B =$ $\sec B =$

$\tan B = 15/7$ $\cot B =$

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

$A =$ _____

$B =$ _____

$C =$ _____

5. Find the approximate values of:

Cos -35=

Tan -206°=

Sec -.546=

Csc 7.26°=

Cot 30 =

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

$\cos^{-1}$ .855=

$\tan^{-1}$ 5.058=

$\csc^{-1}$ -1.362=

$\sin^{-1}$ (-.375)=

$\sec^{-1}$ -.982=

7. A boat sails 37 mph at a bearing of 113°. The current flows 5 mph at 274°. Find the magnitude and bearing of the resultant vector.

8. Identify the quadrant and reference angle of :

a) 585˚ Q_____ θ_{ref} =

b) -472˚ Q_____ θ_{ref} =

c) 2672˚ Q_____ θ_{ref} =

d) -642˚ Q_____ θ_{ref} =

9. Find the exact values of the following (using the Unit Circle values):

(a) $\csc\frac{5\pi}{6}\tan\frac{3\pi}{4}\cos\frac{2\pi}{3}$

(b) $\sin\frac{\pi}{6}\cos\frac{\pi}{3}+\sin\frac{\pi}{3}\cos\frac{\pi}{6}$

(c) $\cos\left(\frac{5\pi}{4}\right)-\sin\left(\frac{\pi}{2}\right)+\tan\left(\frac{13\pi}{6}\right)$

10. $\vec{s}=7\vec{i}-11\vec{j}$ and $\vec{r}=7\vec{i}-24\vec{j}$, find:

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

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

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