

**Honors Algebra II/Trig**  
*Unit 8 Review Day 3*

Name: \_\_\_\_\_

Given that  $\cos A = \frac{-8}{17}$ , A terminates in Quadrant II,  $\cos B = \frac{-5}{13}$ , and B terminates in Quadrant III, find:

1.  $\cos 2B$

2.  $\sin 2B$

3.  $\sin(A+B)$

4.  $\cos(A+B)$

For problems #5-6, prove the identity.

5.  $\frac{\csc x}{1 + \csc x} = \frac{1 - \sin x}{\cos^2 x}$

6.  $\frac{\cos x}{\cos x - \sin x} = \frac{1}{1 - \tan x}$

7. Find the exact value of  $\sin 195^\circ$

8. Find the exact value of  $\sin(-15)^\circ$

For problems #9-11, solve the equation in the indicated domain.

9.  $\sec^2 x + \tan x = 0$   $x \in [0, 2\pi)$

10.  $\sin(2x + 12^\circ) = \frac{1}{2}$   $x \in [0, 360^\circ)$

11.  $2\cos^2 x - 7\cos x - 4 = 0$   $x \in [0, 360^\circ)$