

**PRE CALCULUS  
Practice 5.1-5.3**

Assg# \_\_\_

NAME \_\_\_\_\_ DATE \_\_\_\_\_ PER \_\_\_\_\_

**FOR 1-14: SHOW ALL THE WORK ON THE BACK-EXCEPT 16:**

**I. EVALUATE USING THE SUM OR DIFFERENCE FORMULAS.**

1)  $\cos \frac{7\pi}{12}$

2)  $\sin \frac{7\pi}{12}$

3)  $\cos 195^\circ$

4)  $\sin 285^\circ$

5)  $\tan \frac{5\pi}{12}$

6)  $\tan \frac{13\pi}{12}$

**II. IF  $\sin x = -\frac{5}{13}$  AND  $\sin y = \frac{4}{5}$ ,  $\pi < x < \frac{3\pi}{2}$ ,  $0 < y < \frac{\pi}{2}$ ,**

**FIND THE FOLLOWING: (DRAW AND SHOW ALL THE PRELIMINARY WORK)**

7)  $\sin 2y$

8)  $\cos 2x$

9)  $\tan 2y$

10)  $\sin (x + y)$

11)  $\cos (x-y)$

**III. IN PROBLEMS 10-12, USE HALF-ANGLE FORMULAS TO FIND THE EXACT ANSWER:**

12)  $\sin 105^\circ$

13)  $\cos 112.5^\circ$

14) FIND  $\sin \frac{x}{2}$ , IF  $\cos x = -\frac{7}{25}$  AND  $\frac{\pi}{2} < x < \pi$ .

15) **ON A SEPARATE PAPER → PICK 6 PROB. ON P. 680 #23-34**  
\*\*ATTACH TO BACK OF THIS WS\*\*

16) Find the exact answer for  $\tan 120^\circ$  by using two different half angle formulas. The first formula must be the one containing square roots.

**Show all the work below--clearly.**

Formula:

Formula:

1)
2)
3)
4)
5)
6)
7)
8)
9)
10)
11)
12)
13)
14)