

Chapter 7 Review Worksheet
Pre-Calculus

Name: _____

Date: _____ Per: _____

If $\cos x = \frac{-2}{5}$ and X is in III Quad

1. $\sin X =$

4. $\cos 2X =$

2. $\tan X =$

5. $\tan 2X =$

3. $\sin 2X =$

6. $\sin X/2 =$

Find the exact value of the following:

7. $\tan 22.5^\circ =$

9. $\cos 195^\circ =$

8. $\sin 165^\circ =$

10. $\sin -15^\circ =$

Solve each equation for a.) all values $0^\circ \leq X < 360^\circ$ b.) All real values and
c.) Principal Values

11. $\sin^2 x = \frac{1}{4}$

a.)

b.)

c.)

13. $\sin X = \cos X$

a.)

b.)

c.)

12. $2\sin X - 3\sin X + 1 = 0$

a.)

b.)

c.)

14. $\tan X = -1$

a.)

b.)

c.)

(Over)

Verify the following identities--Work on the one side only:

15. $\tan a \sin a + \cos a = \sec a$

16. $\cot a \sec a = \csc a$

17. $\tan a + \cot a = \sec a \csc a$

18. $\cos a - \sin a = \cos(-a) + \sin(-a)$

19. $\frac{\sin a - 1}{\cos a} = \tan a - \sec a$

20. $(\tan a + \cot a) = \sec a + \csc a$