**HW 1 – RADIANS, DEGREES, REFERENCE AND COTERMINAL ANGLES NAME\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**I. Convert the following to degrees or radians.**

$1. -210°$ 2. $\frac{5π}{6}$ $3. \frac{11π}{9}$ 4. $50°$

5. $\frac{-5π}{18}$ 6. $330°$ 7. $-315°$ 8. $\frac{-41π}{36}$

**II. Sketch the following in standard form. Determine the quadrant in which its terminal side lies.**

9. $-200°$ 10.$ \frac{7π}{4}$

11. $\frac{-π}{2}$ 12. $-310°$

**III. Find the reference angles of the following and state which quadrant the terminal side lies in:**

13. $-35°$ 14. $-100°$

15. $140°$ 16. $\frac{7π}{4}$

17. $-225°$ 18. $\frac{-7π}{4}$

**IV. Find two positive and two negative coterminal angles for each of the following:**

19. $-1000°$ 20. $\frac{7π}{3}$ 21. $550°$

**V. Determine if each pair are coterminal angles:**

22. $-1550° and 240°$ 23. $\frac{π}{9}, \frac{37π}{9}$

**VI. Find the coterminal angle of the given angle with given number of rotations:**

24. $\frac{17π}{6}$ , 2 rotations counterclockwise 25. $θ=-15°$, 4 clockwise rotations

**VII. Measure the angle with given rotation. WRITE YOUR ANSWER IN DEGREES AND RADIANS.**

26. $\frac{8}{3}$ rotation, clockwise 27. $\frac{3}{4}$ rotation, counterclockwise

28. $\frac{10}{3}$ rotation, clockwise 29. $\frac{2}{3} $rotation, counterclockwise