**HM3 – TRIG VALUES IN THE COORDINATE PLANE**  NAME\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The following points are on the terminal side of an angle in standard position. Determine the exact values of the six trig functions of the angle.

1. (7, 24) 2. ($-3, 1)$ 3. $(-2, -2)$ 4. (8, $-$6)

5. $(-9, -40)$ 6. $(-\frac{3}{2}, 3)$

7. Find the exact value of sin $θ$ if $cosθ=\frac{\sqrt{2}}{5}$ and $θ$ is an angle in Quadrant 1.

8. Find the exact value of csc $θ$ if $cosθ=\frac{12}{13}$ and $θ$ is an angle in Quadrant 4.

9. Find the exact value of tan $θ$ if $sinθ=\frac{\sqrt{3}}{2}$ and $θ$ is an angle in Quadrant 2.

10. Find the exact value cos $θ$ if $sinθ=\frac{-2\sqrt{5}}{9}$ and $θ$ is an angle in Quadrant 3.

**OLDIES**

Determine the Quadrant in which $θ$ lies and find a positive and negative coterminal angle.

11. $\frac{-3π}{4}$ 12. $\frac{π}{15}$ 13. $-\frac{9π}{7}$

Convert each radian measure to degrees and each degree measure to radians.

14. $\frac{7π}{5}$ 15. $-225°$ 16. $-\frac{11π}{9}$

Find the reference angle. Sketch a picture.

17. $\frac{8π}{5}$ 18. $-\frac{π}{12}$

Use the Unit Circle to evaluate each trig function.

19. $cos\frac{2π}{3}$ 20. $sin\frac{π}{4}$ 21. $csc\frac{4π}{3}$ 22. $sec\frac{2π}{3}$ 23. $cot\frac{π}{2}$