

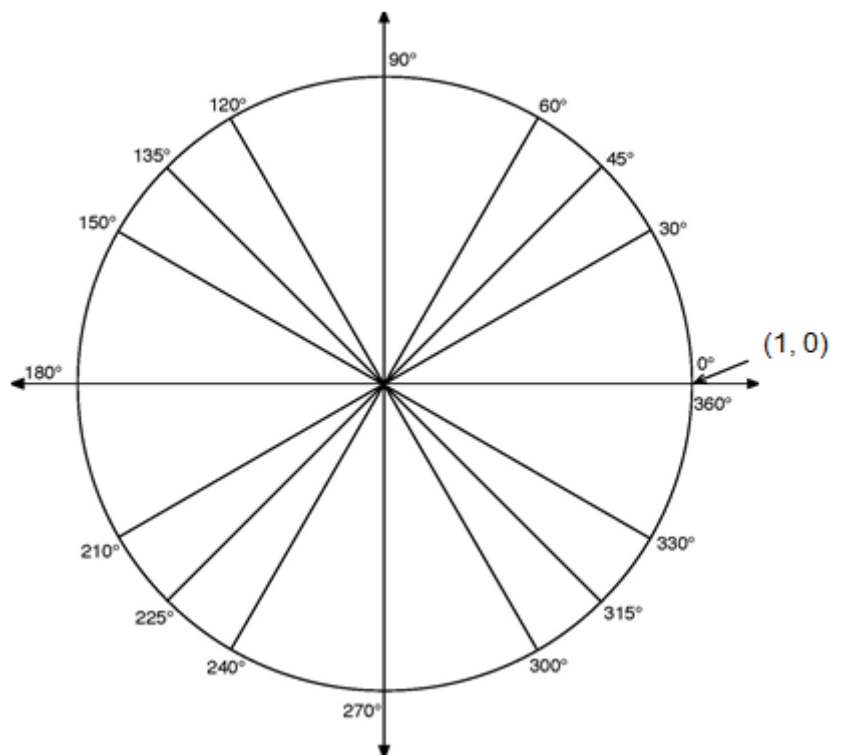
Name: _____ Date: _____ Period: _____

Trigonometry: *Chapter 1 Review*

Show all work on a separate sheet of paper. In addition to this review sheet, review all notes, handouts, homework assignments, and the quiz to prepare for the Chapter 1 Test.

- Solve for the lengths of the right triangle if the legs are x and 4 and the hypotenuse is $x+2$.
- An escalator in a department store is to carry people a vertical distance of 50 feet between floors. How long is the escalator if it makes an angle of 60° with the ground?
- If the distance between $(-2,3)$ and $(x, 1)$ is $\sqrt{13}$, solve for x .
- For each of the following angles:
 - Draw the angle in standard position.
 - Identify a point on the terminal side.
 - Find the distance from the origin to the point.
 - Find the six trig functions of the angle.

a. -120°	d. 60°
b. 270°	e. 315°
c. 150°	f. 180°
- If which quadrant will θ lie if:
 - $\sin \theta < 0$ and $\cos \theta > 0$
 - $\cot \theta$ and $\cos \theta$ have the same sign.
 - $\cos \theta$ is positive and $\sin \theta$ is negative
- Find all six trig functions for θ , given the following information:
 - $(-6, 8)$ lies on the terminal side of θ .
 - $\tan \theta = -\frac{3}{4}$ and θ lies in Q IV.
 - $\sec \theta = -3$ and θ lies in QIII.
- Find all the points on the unit circle.



8. Simplify and/or perform the indicated operation.

1. $\sqrt{72}$

2. $2\sqrt{256}$

3. $\sqrt{48}$

4. $\sqrt{720}$

5. $3\sqrt{125}$

6. $\sqrt{828}$

7. $\sqrt{80}$

8. $\sqrt{240}$

9. $\sqrt{900}$

10. $\sqrt{96}$

11. $(5\sqrt{2})^2$

12. $(4\sqrt{3})^2$

13. $(5\sqrt{2})(7\sqrt{3})$

14. $\left(\frac{\sqrt{3}}{3}\right)\left(\frac{\sqrt{6}}{2}\right)$

15. $(2\sqrt{3})(5\sqrt{7})$

18. $\frac{7}{\sqrt{7}}$

19. $\frac{\sqrt{5}}{\sqrt{10}}$

20. $\frac{4}{\sqrt{2}}$

21. $\frac{\sqrt{3}/2}{1/2}$

22. $\frac{1/2}{\sqrt{3}/2}$

23. $\frac{3}{\sqrt{2}} \cdot \frac{2}{\sqrt{3}}$

9. Write the equation of a circle with radius 9 and center (-11, 5). Then, decide if the following points are on the circle, inside the circle or outside the circle: (-2, 4) (-12, -4), (-9, 9) (-4, -3).

10. Write the equation of a circle with radius 4^2 with center (-9, 4).