

Name: \_\_\_\_\_

**QUIZ 11**  
**305G 11-5-08**

(1) The functions  $f(\theta) = \sin(\theta)$  and  $g(\theta) = \cos(\theta)$  both have domain of \_\_\_\_\_ and both have range of \_\_\_\_\_.

(2) Solve the exponential equation  $36^x - 6 * 6^x = -9$  for  $x$  and simplify your answer.

(3) Draw and clearly label the following angles.

a).  $\frac{16\pi}{3}$

b).  $\frac{-\pi}{6}$

(4) Determine the arclength corresponding to an angle of  $\alpha = 7$  radians on a circle of radius  $r_1 = 1$  and on a circle of radius  $r_2 = 11$ .