**13.3/13.6 Exact Values using the UNIT CIRCLE**

ACC Geometry Notes

The circle below is called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_ because the value of the radius is \_\_\_\_\_\_\_\_\_\_\_\_.



With radius= 1, find:

cos= \_\_\_\_\_\_\_\_\_\_

sin= \_\_\_\_\_\_\_\_\_\_

tan= \_\_\_\_\_\_\_\_

**Unit Circle**



Find all points on the unit circle using special right triangles.



Find the exact value of each function by using the unit circle. Place the question # by the coordinates that correspond to the answer of the question.

1. cos (-240°) 2. tan 5/4  3. sin5

4. csc(11/4) 5. sec(-3/4) 6. cot 7/6



7.

8. Find the exact value of the function. 2(sin45⁰)-6(cos135⁰).

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_ Hour\_\_\_\_\_

**Unit Circle Homework**

Find the exact value of each function by using the unit circle. Place the question # by the coordinates that correspond to the answer of the question.



1. 2. 3. sec 5



4. tan 5. cot 6. Csc (-225°)

Directions: *Find the exact value of each function… and I mean EXACT.*

*No decimals!!!!!!!*

7. $\frac{cos60°+sin30°}{4}$ 8. $3(sin60°)(cos30°)$

9. $\sin(30°-\sin(60°))$ 10. $\frac{4\cos(330)°+2\sin(60)°}{3}$

11. $12(\sin(150°)(\cos(150°)))$ 12. $(\sin(30°))^{2}+(\cos(30°))^{2}$

13. A Regular hexagon is inscribed in a unit circle centered at the origin. If one vertex of the hexagon is at (1,0), find the exact coordinates of the remaining vertices. Use the picture to help!



14.