**NAME:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ QUIZ PREP 13.1, 13.2, 13.3**

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| 1. If the length of the arc of a sector is and the  central angle is , find the length of the radius. | 2. If lies in quadrant II and ,  find |
| 3. If the minute hand of a clock measures 6 inches,  how long is the arc traced by this hand from  1:00 to 1:30? | 4. Find the **exact value** of ? |
| 5. If , find the following:    Reference angle\_\_\_\_\_\_\_\_\_\_\_  Positive coterminal angle\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Negative coterminal angle\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | 6. Find the **exact value** of . |
| 7. Express in radian measure.  Express radians in degree measure. | 8. The coordinates of a point on the unit circle  are . If the terminal side of  angle in standard position passes  through the given point, find  Choices: |
| 9. In circle O, the length of radius is 5 cm and  the length of arc AB is 5 cm. Find the measure of  angle AOB.  Choices:   1. 1 radian 2. degrees 3. radians 4. more than degrees | 10. If lies in quadrant IV and ,  find |
| 11. | 12. |

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| 13. Draw in standard position, state the reference angle and give a coterminal angle in both radians and degrees. | 14. Draw in standard position, state the reference angle and give a coterminal angle in both radians and degrees. |
| 15. Given is a point on the terminal side of an angle in standard position drawn on a unit circle. What is the cosine of the angle. | 16. Find the reference angle for |
| 17. Find the reference angle for | 18. Name two angles in standard position where . |
| 19. Find the exact value of | 20. Find the exact value of |
| 21. A base of a Ferris wheel at Darian Lake is one foot above the ground. Draw a labeled sketch of one cycle of the car on the wheel that starts in the 6 o’clock position if the diameter is 30 feet. | 22. If the Ferris wheel fell off its supports in an ice storm and rolled 175 feet down the road, what is the number of radians the wheel turned? |
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