Pre – Calculus Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Chapter 4 TICKET TO RETAKE

**NO CALCULATOR PORTION.**

1. Find the reference angle for  if  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Find the reference angle for  if  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Convert to radians \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Convert radians to degrees \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. If possible, find the complement and supplement of  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Evaluate:
2.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Find the quadrant in which  lies such that  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. In a right triangle, and  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. Find and if  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Given that and , find  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. The point given is on the terminal side of an angle in standard position. Determine the exact values of the six trigonometric functions.



  

  

  

1. Verify the trig identity: 
2. Verify the trig identity: 

Graph one period of the given function. Label the x – axis (in radians), y – axis, and any asymptotes of the function. Show your work for full credit.

1. 
2. 
3. 

**CALCULATOR PORTION**

1. The maximum average monthly temperature in New Orleans is 82and the minimum is 54. The table shows the average monthly temperatures.

|  |  |  |  |
| --- | --- | --- | --- |
| **Month** |  | **Month** |  |
| January | 54 | July | 82 |
| February | 55 | August | 81 |
| March | 61 | September | 77 |
| April | 69 | October | 71 |
| May | 73 | November | 59 |
| June | 79 | December | 55 |

1. Sketch a graph of the information above.
2. Write an equation of the curve that approximates the data above.
3. Mr. Evers challenged Mr. Koehrer to a nerf gun fight. They are making forts in the math hallway to set up defenses. Mr. Evers is contemplating attacking Mr. Koehrer’s fort, but wants to know how high the walls are first. While in his fort, he looks up at an angle of 35 degrees to the top of his opponents wall. He crawls 5 feet closer (while Mr. Koehrer is not paying attention) and has to look up at an angle of 38.3 degrees to see the top of the same wall. How tall did Mr. Koehrer make his fort’s walls?