**§5-9 Reciprocal Trig Functions**

Are the following statements TRUE or FALSE? If FALSE, change the statement to make it true. Do NOT make ‘cheap’ corrections!! (♫cheep, cheep!♪) Your corrections should show depth of knowledge about the concept.

1. Reciprocal trig functions are the original trig functions reflected over the  line.
2. In right triangle trigonometry, secant is the ratio of the opposite leg to the hypotenuse.

3. In right triangle trigonometry, cosecant is the ratio of the adjacent leg to the opposite leg.

4. In right triangle trigonometry, cotangent is the ratio of the opposite leg to the adjacent leg.

5. To find the secant of , determine what the sine of  is and take the reciprocal.

6. The graph of the cosecant function has asymptotes where the graph of the sine function has zeros, odd integer multiples of .

7. The graphs of the tangent function and the cotangent function never intersect.

8. The ranges of the cosecant and cotangent functions are the same.

9. The periods of the reciprocal trig functions are the same as the periods of the respective original trig functions.

10. The graphs of cosecant and sine intersect wherever the output of the functions equal ½.

11. As the value of the sine function gets closer and closer to zero, the value of the cosecant function for the same x-value also approaches zero.

12. Along with its original trig function cosine, secant is an odd function.

13. To determine the value of cotangent of , use the unit circle to visualize the tangent of 

14. Both cosine and secant have restrictions of their domains.

15. The secant and cosecant functions have the same domain.

16. The tangent and cotangent functions have asymptotes at the same x-values.

17. The reciprocal of  is .

18. Cosecant is the inverse of sine.

19. For the secant function, the domain of cosine needs to be restricted so that secant can pass the vertical line test.

20. Reciprocal trig functions and inverse trig functions are synonyms.



[simplify]

1a)  1b)  1c)  2)  3)  4)  5)  6)  7)  8) undef 9) -2 10) -1 11) -2 12)  13)  14) 15)  16)  17) 