## Section 3.5: Derivatives of Trigonometric Functions

MATH 130: Calculus I

Due: Wednesday, March 6, 2019 at 12:20
Name (Print): $\qquad$

After reading Section 3.5 (pages 171-175 in the text), respond to the following questions on this handout. Be sure to staple your pages together before turning it in. You must answer all parts to all questions to earn full credit!!! See the salmon homework guidelines handout for details. You are encouraged to take additional notes wherever you are keeping your class notes.

## Response Section

1. State Theorem 3.10: Trigonometric Limits.
2. On pages 171-172 in our text they prove the first part of Theorem 3.10.
(a) What theorem do they use in the proof to prove this limit?
(b) What three things are used to create the inequalities for the proof?
(c) Draw the diagram in Figure 3.36.
3. State Theorem 3.12: Derivatives of the Trigonometric Functions.
4. Use the quotient rule to determine the derivative of $\sec x$. (See Example 3 on page 174 for how this is done for $\tan x$.)

## Questions/Exercise Section

5. Write down at least two questions you have on the reading. OR if you have NO questions, do exercise 34 in Section 3.5 (page 176). Be sure to show all steps for full credit! See the salmon homework guidelines handout for details.

## Reflection Section

6. Write two or three sentences reflecting on the process of your recent work in the course. See the salmon homework guidelines handout for details.

## Time Section

7. How much time did you spend on this reading assignment? $\qquad$
