

Math 1210-02 Homework

Test Corrections (optional but strongly encouraged): You may do test corrections for half the points you missed back. You must have me look them over with you. Please make corrections on the test itself either clearly boxed off from previous work or in a different color of pen/pencil. Detailed work must be shown. I must be able to tell that you really understand the problem. All missed problems must be correctly corrected to get the half points back. Bonus problems don't count. Late corrections are not accepted. Early corrections are very much appreciated.

Resources for Help:

- The Student Success Center <http://www.suu.edu/ss/success/> in the Sharwan Smith Center has free tutoring <http://www.suu.edu/ss/success/tutoring.html>.
- My office hours are Monday and Thursday, 10-12, 4-4:30 in SC 120. Other times by appointment.
- Friday help sessions with the TA are primarily question/answer sessions.

Date	Probable Lecture Topic	Assignment Due
Feb 4	3.5	Hw 13 Due by 4:30pm sharp
Feb 5	3.6	
Feb 6	3.6	Test corrections due by 4:30 sharp. They must be completely correct and I must have looked them over by 4:30.
Feb 7	3.7	Hw 14, Hw 15 Due at the end of class
Feb 8	Help Session (optional)	

Hw 14: (due Thursday Feb 7 by the end of class)

A. From memory, give the derivatives of $\sin x$, $\cos x$, and $\tan x$.

Exercises pg 207: 1,5,11,13,19,26bc,29b

B. Take the first 6 derivatives of $\sin x$. What do you notice? Find the 100th derivative of $\sin x$ using what you noticed.

C. What is the addition formula for sine? (See Appendix A pg 8)

D. Read the proof on pg 204 that the derivative of $\sin x$ is $\cos x$. Try to understand the details. Put a check \checkmark to show you did it.

E. Find the derivative of cotangent using that $\cot x = \frac{\cos x}{\sin x}$ and the quotient rule.

F. Challenge Problem: (These problems are **optional** and not worth points. They are just for fun!) pg 208 40a

Hw 15: (due Thursday Feb 7 by the end of class)

A. Give the chain rule in your own words.

Quick Check Exercises pg 214: 3,4a

B. Give the outside and inside functions for 9,11,16,17
pg 214-216: 2,3b,5a,9,11,16,17,29,30,31,34,38,52