

This Assignment is due Monday, November 8<sup>th</sup> at 5 p.m. You may send me a CRISP, CLEAR, BLACK-and-WHITE PDF or slide it under my office door (EDBH 134K) on Greeley Campus or mail the original to my home address:

Harry Mills  
2358 50<sup>th</sup> Ave  
Greeley, CO 80634

I will only accept unlined (copier or printer) paper. If you do a PDF scan, and can't get the background white and the writing very dark (black), then I won't accept it. College Algebra students can do it, so Calculus students can, too. But if you can't, because of technology, just send me the paper-and-pencil work, either by sliding it under my door or mailing it to me. As long as the postmark is December 1<sup>st</sup> or before, you will receive full credit.

SHOW ALL WORK. CIRCLE FINAL ANSWERS. Answers without supporting work will receive at most half credit, and probably much less. Leave a one-inch MARGIN in the top left corner. Any work stapled-over or exercise #s stapled-over will receive zero credit.

Use lots of space. LEAVE lots of space. Cramped work will not receive full credit. The easier it is for me to process your fine work, the more points you will receive. If your work is cramped or illegible, I won't waste my time because you took too little care in making a solid presentation. It doesn't have to be textbook-quality, but it needs to be clear.

Ask me if you're not sure.

1. (10 pts) Evaluate the definite integral  $\int_1^4 (2x^2 - 4x + 5) dx$  using the right-endpoint version of the definition of

the definite integral  $\int_a^b f(x) dx = \lim_{n \rightarrow \infty} \frac{b-a}{n} \sum_{k=1}^n f\left(a + \frac{b-a}{n}k\right)$ .

2. (10 pts) Find  $g'(x)$  if  $g(x) = \int_{x^2}^{\ln(x)} \frac{\sin(t^2 + 2)}{t^4 + |\cos(t)|} dt$  for  $x > 0$ .

3. (10 pts) Find  $(f^{-1})'(5)$  if  $f(x) = x^4 + 2 \tan(x) + 5 \cos(x)$

4. (10 pts) Find  $y'$  if  $y = (x^2 + 2x)^{\tan(x)}$ .