

TEST PREP on 7.1, 7.2 and 7.3 - Dr. Loveless

- These problem comes *directly* from the Dr. Loveless Exam archive on my review materials page. You can find solutions in that archive.
 - Try to put yourself in an exam like situation as you attempt these. Could you do this on an exam?
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Remember: Please ask your TA for the participation code and enter it in the quiz!

Note: The 7.3 homework has some of the longest integrations of the term. Particular problems 5, 6, 7 and 8 as they require you to complete a square, then do a trig substitution, and the work is long. I will work out at least one of them on the discussion board, but it still would be wise to get ahead on the rest of the homework and allow yourself plenty of time on the 7.3 homework.

From 7.2 material

Winter 2015 - Exam 2 - Problem 2(b) - Dr. Loveless

2(b). Evaluate $\int_0^{\pi/2} \cos^4(x) \sin^3(x) dx$

Winter 2011 - Exam 2 - Problem 1(a) - Dr. Loveless

2(b). Evaluate $\int \sec^4(x) \tan^3(x) dx$

From 7.1 material

Fall 2017- Exam 2 - Problem 2(b) - Dr. Loveless

2(b). Evaluate $\int \frac{\ln(x)}{x^5} dx$

Fall 2011- Exam 2 - Problem 3(a) - Dr. Loveless:

3(a). Find the average value of $f(x) = \tan^{-1}(3x)$ on the interval $x = 0$ to $x = \frac{1}{3}$.

Winter 2019- Exam 2 - Problem 3(a) - Dr. Loveless:

3(a). Evaluate $\int \cos(\sqrt{x}) dx$ (*Hint: First substitute $t = \sqrt{x}$*).

From 7.3 material

Fall 2017 - Exam 2 - Problem 2(a) - Dr. Loveless:

2(a) Evaluate $\int \frac{x^2}{(x^2 + 4)^{3/2}} dx$

Winter 2015 - Exam 2 - Problem 2(a) - Dr. Loveless:

2(a) Evaluate $\int \frac{x}{(x^2 + 4x + 13)^{3/2}} dx$