Instructor: Leo Goldmakher

Williams College
Department of Mathematics and Statistics

MATH 140 : Calculus II

Problem Set 13 – due Thursday, April 16th

INSTRUCTIONS:
This assignment must be turned in by email on Thursday at **9am** EDT (that's morning in Williamstown).
You may submit photos or scans of your written work (or you can try using the `scratchwork` app:
`https://app.scratchwork.io/`). Make sure your name appears on each page.
Please submit your assignment to our TA Nick ⟨nrh3@williams.edu⟩, and be prepared to discuss these
problems in your upcoming small group meeting.

13.1 Evaluate $\displaystyle\int_{-1}^{3} 2x - 3\,dx$.

13.2 Evaluate $\displaystyle\int_{-1}^{1} x^3\,dx$.

13.3 Evaluate $\displaystyle\int_{1}^{2} x^3\,dx$.

13.4 Evaluate $\displaystyle\int_{-\pi/2}^{\pi/2} \cos x\,dx$.

13.5 Evaluate $\displaystyle\int_{0}^{1} e^{-x}\,dx$.

13.6 Evaluate $\displaystyle\int_{1}^{e} \frac{1}{x}\,dx$.

13.7 Evaluate $\displaystyle\int_{1}^{2} \frac{1}{x^3}\,dx$.

13.8 Evaluate $\displaystyle\int_{1}^{4} \sqrt{x}\,dx$.

13.9 Evaluate $\displaystyle\int_{-\pi/2}^{\pi/2} x\cos(x^2)\,dx$.

13.10 Evaluate $\displaystyle\int_{0}^{1} xe^{x^2}\,dx$.