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Williams College
Department of Mathematics and Statistics

MATH 140 : Calculus II

Problem Set 18 – due Tuesday, May 5th

INSTRUCTIONS: This assignment must be turned in by email on Tuesday at **9am** EDT (that's morning in Williamstown) by going to

<https://bit.ly/2RRu2aV>

You may submit photos or scans of your written work; please make sure your name appears on each page. (You can also try using the `scratchwork` app: <https://app.scratchwork.io/> to write up your HW.) Be prepared to discuss these problems in your upcoming small group meeting.

Evaluate the following:

18.1 $\int \frac{3x}{\sqrt{1+3x^2}} dx$

18.6 $\int e^{-x} \sin(4x) dx$

18.2 $\int \frac{x^5 - 2x + 5}{x^3} dx$

18.7 $\int 7 \cos 5x - 5 \sin 7x dx$

18.3 $\int e^{2z} \cos\left(\frac{1}{4}z\right) dz$

18.8 $\int t^7 \sin(2t^4) dt$

18.4 $\int \sqrt{x}(1 + \sqrt{x})^3 dx$

18.9 $\int 6 \tan^{-1}\left(\frac{8}{w}\right) dw$

18.5 $\int \frac{7}{2 + \sqrt{x-4}} dx$

18.10 $\int 4x \cos(2 - 3x) dx$