

Homework Math 140

To be quizzed Thursday May 2.

Instructor. Todor Milev

This homework contains copyrighted material from James Stewart, Calculus, 7th edition, 2012. You are not permitted to copy this file for any purpose other than completing your homework. You are not allowed to give a copy of this file to anyone outside of our course.

Problem 1 (page 273) Find the most general antiderivative of the function.

1. $f(x) = x - 3.$

7. $f(x) = 7x^{2/5} + 8x^{-4/5}.$

13. $g(t) = \frac{1+t+t^2}{\sqrt{t}}.$

2. $f(x) = \frac{1}{2}x^2 - 2x + 6.$

8. $f(x) = x^{3.4} - 2x^{\sqrt{2}-1}.$

14. $f(x) = 3 \cos t - 4 \sin t.$

3. $f(x) = \frac{1}{2} + \frac{3}{4}x^2 - \frac{4}{5}x^3.$

9. $f(x) = \sqrt{2}.$

15. $f(\theta) = 2 \sin \theta - \sec^2 \theta.$

4. $f(x) = 8x^9 - 3x^6 + 12x^3.$

10. $f(x) = \pi^2.$

16. $f(\theta) = 6\theta^2 - 7 \sec^2 \theta.$

5. $f(x) = (x+1)(2x-1).$

11. $f(x) = \frac{10}{x^5}.$

17. $f(t) = 2 \sec t \tan t + \frac{1}{2}t^{-1/2}.$

6. $f(x) = x(2-x)^2.$

12. $f(x) = \frac{5-4x^3+2x^6}{x^6}.$

18. $f(x) = 2\sqrt{x} + 6 \cos x.$