

Extra Homework 2 Math 121 Benedetto

Due **Sunday, February 21st** in Gradescope by 11:59 pm ET

Review of Integration using u -substitution: Please try and work these indefinite integrals quickly. Practice! See Section 4.5 (Stewart Calculus) or the Integration Review video for review of the u -substitution rule if needed.

1. $\int \frac{1}{e^{7x}} dx$

2. $\int e^{14x} dx$

3. $\int e^{1-2x} dx$

4. $\int \frac{e^{\sqrt{x}}}{\sqrt{x}} dx$

5. $\int e^x \sin(e^x) dx$

6. $\int \cos\left(\frac{x}{5}\right) dx$

7. $\int \sec^2 \theta \tan^3 \theta d\theta$

8. $\int (2 - 3x)^5 dx$

9. $\int \frac{1}{7-x} dx$

10. $\int \frac{1}{\sqrt{7x+5}} dx$

11. $\int \frac{1}{(3-5x)^2} dx$

12. $\int \frac{1}{2x-1} dx$

13. $\int \frac{1}{\sqrt{x}(1+\sqrt{x})^2} dx$

14. $\int x\sqrt{7-3x^2} dx$

15. $\int \frac{1}{x \ln x} dx$

16. $\int \sin(\pi x + 1) dx$

17. $\int x(1-x)^{79} dx$

18. $\int x^3(x+1)^{79} dx$

19. $\int \frac{x^2}{\sqrt{3-x}} dx$

you will need help on 17-19, so jump into Office Hours