

Homework #1 Final Answers

Show All work for these u-substitutions

Posted here are just the Final Answers

1. $-\frac{1}{7}e^{-7x} + C$

11. $\frac{1}{5(3-5x)} + C$

2. $\frac{1}{14}e^{14x} + C$

12. $\frac{1}{2} \ln|2x-1| + C$

3. $-\frac{1}{2}e^{1-2x} + C$

13. $\frac{-2}{1+\sqrt{x}} + C$

4. $2e^{\sqrt{x}} + C$

14. $-\frac{1}{9}(7-3x^2)^{3/2} + C$

5. $-\cos(e^x) + C$

15. $\ln|\ln x| + C$

6. $5 \sin\left(\frac{x}{5}\right) + C$

16. $-\frac{1}{\pi} \cos(\pi x + 1) + C$

7. $\frac{\tan^4 \theta}{4} + C$

17. $\frac{-(1-x)^{80}}{80} + \frac{(1-x)^{81}}{81} + C$

8. $-\frac{1}{18}(2-3x)^6 + C$

18. $\frac{(1+x)^{83}}{83} - 3\frac{(1+x)^{82}}{82} + 3\frac{(1+x)^{81}}{81} - \frac{(1+x)^{80}}{80} + C$
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9. $-\ln|7-x| + C$

19. $-18\sqrt{3-x} + 4(3-x)^{3/2} - \frac{2}{5}(3-x)^{5/2} + C$

10. $\frac{2}{7}\sqrt{7x+5} + C$

20. $\frac{7}{45}$