Math 229 Practice

Integral Worksheet Solutions

1. $\frac{1}{30}(5x+4)^6 + C$
2. $\frac{1}{6}(t^3+4)^6 + C$
3. $\frac{1}{6}(4x-5)^{3/2} + C$
4. $\frac{2}{3}(t^3+4)^{1/2} + C$
5. $\frac{1}{2}\sin(2x+1) + C$
6. $\frac{1}{11}\sin^{11} x + C$
7. $\frac{1}{4}(\cos x)^{-4} + C$
8. $\frac{2}{3}x^{3/2} - 2x + 2x^{1/2} + C$
9. $\frac{2}{3}(x^3+x^2)^{3/2} + C$
10. $-\frac{1}{4}(x^2+2x+2)^{-2}\Big|_{-1}^{1} = \frac{6}{25}$
11. $\frac{2}{3}(\sin x)^{3/2}\Big|_0^{\pi} = 0$
12. $-\frac{1}{2}\cos(x^2+2x+3) + C$
13. $-\frac{1}{4}\big(1+\frac{1}{t}\big)^4 + C$
14. $\frac{2}{9}(x^3+1)^{3/2}\Big|_{-1}^{1} = \frac{4\sqrt{2}}{9}$
15. $\frac{4}{3}(3x-7)^{1/2} + c$
16. $-2(\sqrt{x}+1)^{-1}\Big|_1^4 = \frac{1}{3}$
17. $\frac{2}{3}(x+1)^{3/2} - 2(x+1)^{1/2}\Big|_0^1 = \frac{4-2\sqrt{2}}{3}$
18. $\frac{1}{10}(2x+1)^{5/2} - \frac{1}{6}(2x+1)^{3/2} + C$
19. $\frac{4}{9}(x^{3/2}+1)^{3/2} + C$
20. $\frac{1}{5}(x^2-1)^{5/2} + \frac{1}{3}(x^2-1)^{3/2} + C$
21. $\frac{2}{7}(x-2)^{\frac{7}{2}} + \frac{8}{5}(x-2)^{\frac{5}{2}} + \frac{10}{3}(x-2)^{\frac{3}{2}} + C$
22. $x + (x+1)^{-1} + C$
23. $-(x+3)^{-1} + C$
24. $-\frac{1}{2}(1+\tan x)^{-2} + C$
25. $\frac{1}{3}(2+3\cos x)^{-1} + C$
26. $\frac{1}{2}\sec(x^2) + C$
27. $\frac{3}{14}(t^2+4)^7 - (t^2+4)^6 + C$
28. $\frac{1}{2}\tan 2x - \frac{1}{2}\cot 2x + C$