

u-Substitution - Homework

1. $\int \sqrt{x-2} \, dx$

2. $\int (2x+3)^{11} \, dx$

3. $\int \sqrt{5x-1} \, dx$

4. $\int \sqrt[3]{6x+1} \, dx$

5. $\int 5(3-4x)^{2/3} \, dx$

6. $\int \frac{dx}{(8x-1)^3}$

7. $\int x(x^2+2)^6 \, dx$

8. $\int 6x^2 \sqrt{3x^3-1} \, dx$

9. $\int \left(1 + \frac{1}{x}\right)^3 \left(\frac{1}{x^2}\right) \, dx$

10. $\int x^{1/3} (x^{4/3} + 9)^8 \, dx$

11. $\frac{2}{3} \int \sqrt{4 - \frac{3}{5}x} \, dx$

12. $\int (3x+15) \sqrt{x^2+10x+4} \, dx$

13. $\int (x+2)\sqrt{x-2} \, dx$

14. $\int \frac{x^2}{\sqrt{x-4}} \, dx$

15. $\int \sin 5x \, dx$

16. $\int \cos \frac{x}{2} \, dx$

17. $\int \frac{1}{3} \sec^2 8x \, dx$

18. $\int \sin 4x \cos 4x \, dx$

19. $\int \cos^3 x \sin x \, dx$

20. $\int \tan x \sec^2 x \, dx$

21. $\int \sqrt{\cos 6x} \sin 6x \, dx$

22. $\int \frac{\sin x}{(4 - \cos x)^3} \, dx$