4D Exercises

1st Fundamental Theorem of Calculus

Evaluate the definite integral using the FTC1 and

5. $\displaystyle\int_0^2 6x\, dx$

7. $\displaystyle\int_{-1}^0 (2x - 1)\, dx$

9. $\displaystyle\int_{-1}^1 (t^2 - 2)\, dt$

11. $\displaystyle\int_0^1 (2t - 1)^2\, dt$

13. $\displaystyle\int_1^2 \left(\frac{3}{x^2} - 1\right) dx$

Larson section 4.3

15. $\displaystyle\int_1^4 \frac{u-2}{\sqrt{u}}\, du$

17. $\displaystyle\int_{-1}^1 \left(\sqrt[3]{t} - 2\right) dt$

23. $\displaystyle\int_0^5 |2x - 5|\, dx$

27. $\displaystyle\int_0^{\pi} (1 + \sin x)\, dx$

32. $\displaystyle\int_{\pi/4}^{\pi/2} (2 - \csc^2 x)\, dx$