

Definite Integrals

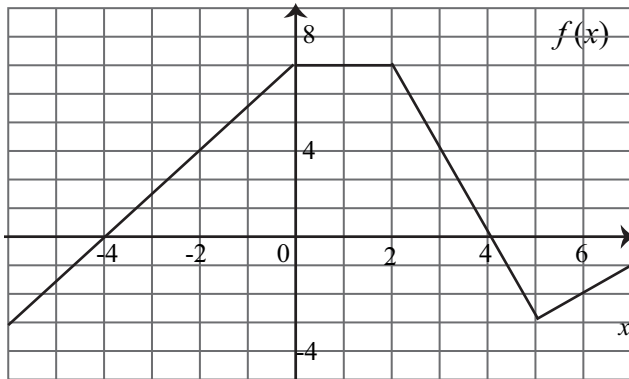


FIG - 1

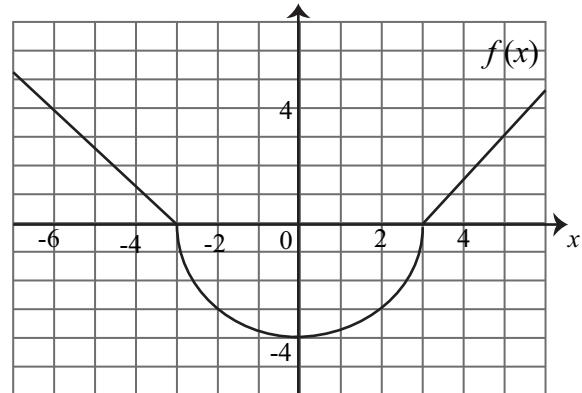


FIG - 2

1. Evaluate $\int_0^1 4x dx$.
2. Evaluate $\int_0^\pi \cos(x) dx$.
3. Evaluate $\int_3^5 (2x - 1) dx$.
4. Evaluate $\int_0^2 \sqrt{4 - x^2} dx$.
5. Find a such that $\int_{-1}^1 ax dx = 10$.
6. Evaluate $\int_{-2}^2 (5 - 3x) dx$.
7. Find a such that $\int_{-a}^a \left(1 + \frac{2}{\pi} \sqrt{16 - x^2}\right) dx = 8$.
8. Evaluate $\int_{-b}^b (1 + \sqrt{b^2 - x^2}) dx$.
9. Evaluate $\int_{-6}^5 f(x) dx$ where the graph of $f(x)$ is given in FIG - 1.
10. Evaluate $\int_{-6}^6 f(x) dx$ where the graph of $f(x)$ is given in FIG - 2.