Definite Integrals

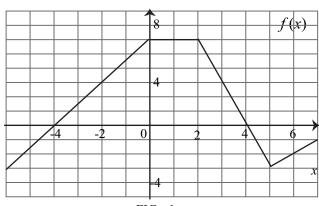


FIG - 1

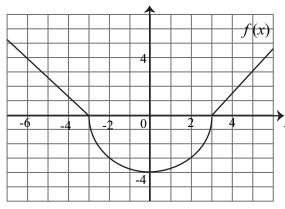


FIG - 2

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
$$\int_{-a}^{a} ((1 + \frac{2}{\pi}\sqrt{16 - x^2}) dx = 8.$$

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.

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