



Ex 1. Based on the graph of $f(x)$ given above, determine the following definite integrals.

a) $\int_{-2}^5 f(x) dx$

b) $\int_{-5}^0 f(x) dx$

Ex 2. Draw a graph of $|x|$ and use it to evaluate the definite integral $\int_{-2}^3 |x| dx$.

Ex 3. Solve the following definite integrals using the Fundamental Theorem of Calculus:

a) $\int_{-1}^1 (1 - x^2) \, dx$

b) $\int_{-2}^2 (x + x^3) \, dx$

c) $\int_1^3 (3x^2 + e^x) \, dx$

d) $\int_1^2 \frac{1}{x} - \frac{1}{x^2} \, dx$