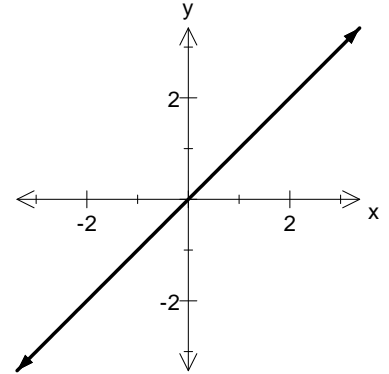


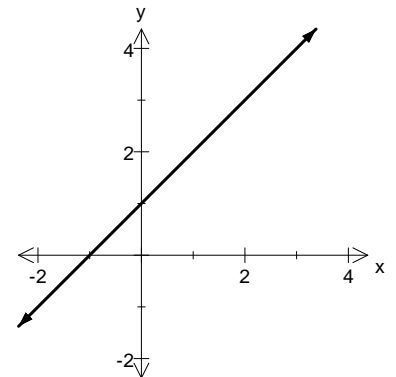
PM - Calculus
4.3 - The Definite Integral

1. a. Determine geometrically, the area between $y = x$ and the x -axis on the interval, $x = [-2, 2]$.



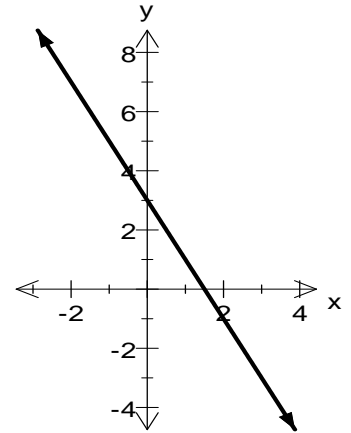
- b. Determine algebraically, the value of $\int_{-2}^2 x \, dx$

2. a. Determine geometrically, the area between $y = x + 1$ and the x -axis on the interval, $x = [-2, 3]$.



- b. Determine algebraically, the value of $\int_{-2}^3 x + 1 \, dx$

3. a. Determine geometrically, the area between $y = 3 - 2x$ and the x -axis on the interval, $x = [-2, 3]$.



b. Determine algebraically, the value of $\int_{-2}^3 3 - 2x \, dx$

4. Determine the area between $y = \sqrt{x}$ and the x -axis on the interval, $x = [0, 16]$.

5. Determine the area between $y = 4x \cos(x^2)$ and the x -axis on the interval, $x = [0, \pi]$.