Section 5.5 Solutions

1a) $\int_{-1}^{0}(x^2 - 4x)dx = 2.33$

1b) $\left|\int_{0}^{4}(x^2 - 4x)dx\right| = |-10.67| = 10.67$
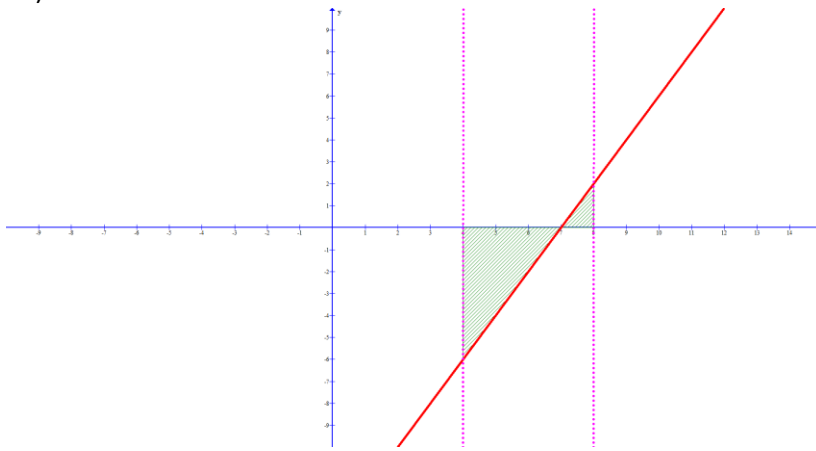
1c) $\int_{-1}^{0}(x^2 - 4x)dx + \left|\int_{0}^{4}(x^2 - 4x)dx\right| = 2.33 + 10.67 = 13$

3a) $\int_{-1}^{2}(2x + 2)dx = 9$

3b) $\left|\int_{-3}^{-1}(2x + 2)dx\right| = |-4| = 4$

3c) $\int_{-1}^{2}(2x + 2)dx + \left|\int_{-3}^{-1}(2x + 2)dx\right| = 9 + 4 = 13$
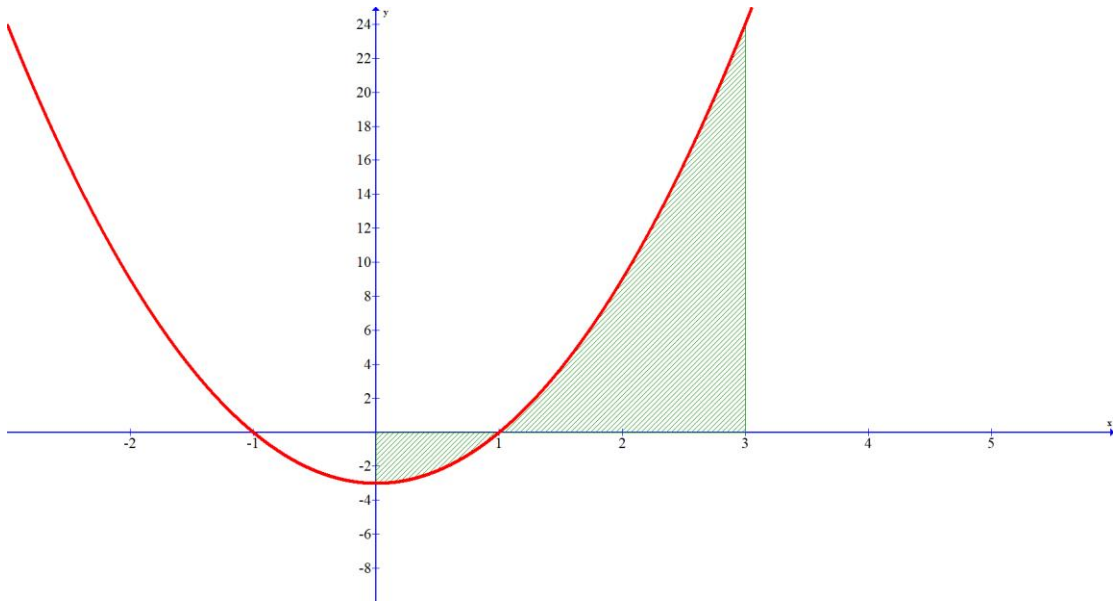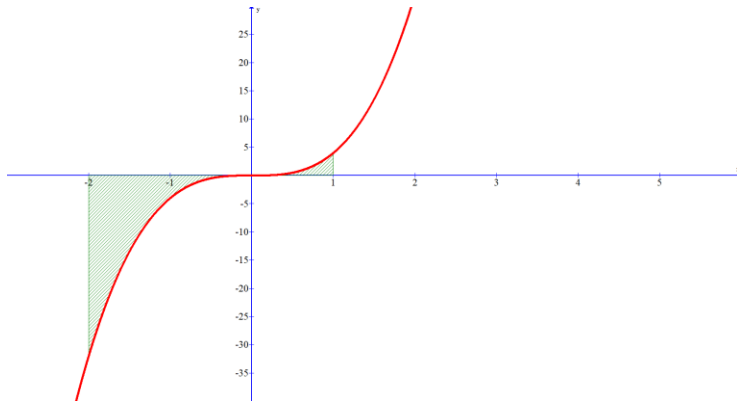
5a)

5b) (7,0)
5c) total shaded area 10

7a) Sketch a graph of the function $f(x)$ over the given interval $[a, b]$.
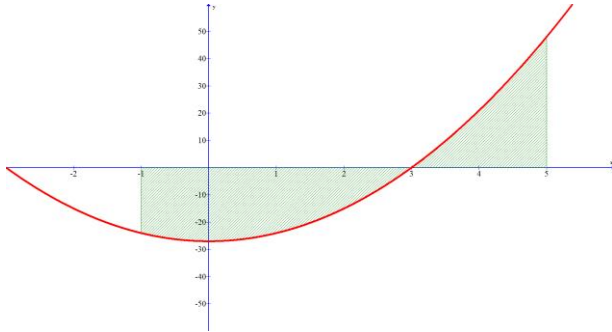

7b) $(1,0)$

7c) total shaded area 22

9a) Sketch a graph of the function $f(x)$ over the given interval $[a, b]$.

9b) (0,0)

9c) total shaded area 17

11a) Sketch a graph of the function $f(x)$ over the given interval $[a, b]$.

11b) (3,0)

11c) total shaded area 124