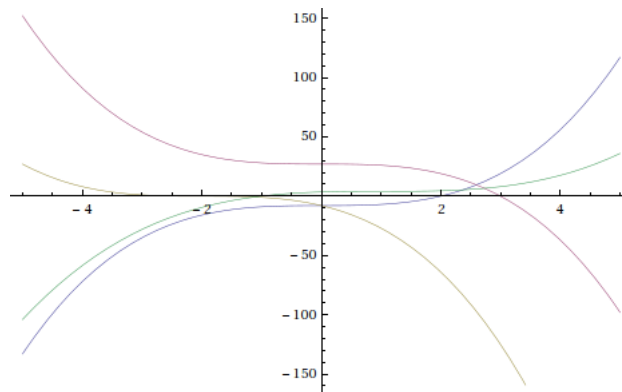
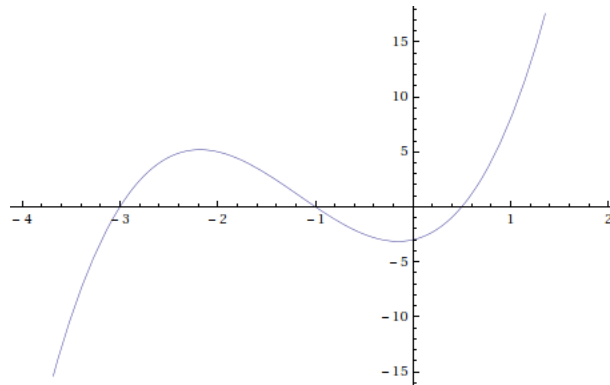


3.1.3 The graphs:

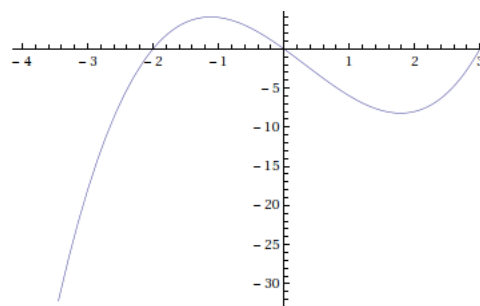


3.1.14 The graph:

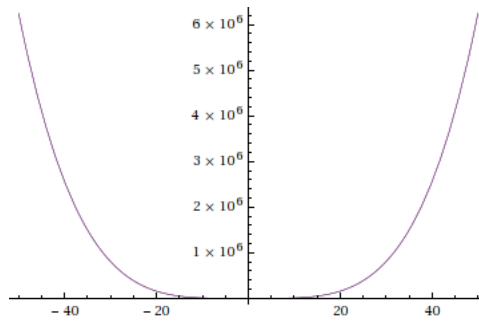
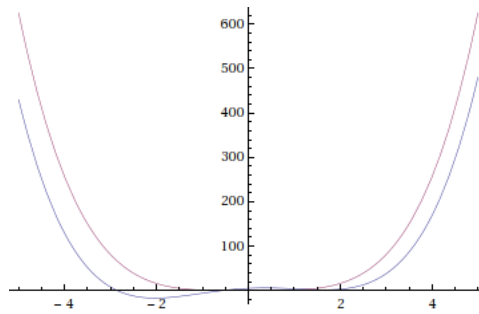


3.1.23 $x^3 - x^2 - 6x = x(x^2 - x - 6) = x(x - 3)(x + 2)$.

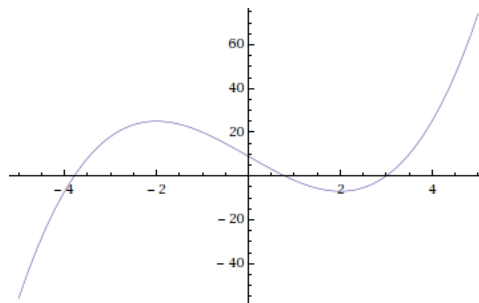
The graph:



3.1.39 $P(x) \rightarrow \infty$ as $x \rightarrow \infty$; $P(x) \rightarrow \infty$ as $x \rightarrow -\infty$. The graphs:



3.1.49 The graph:

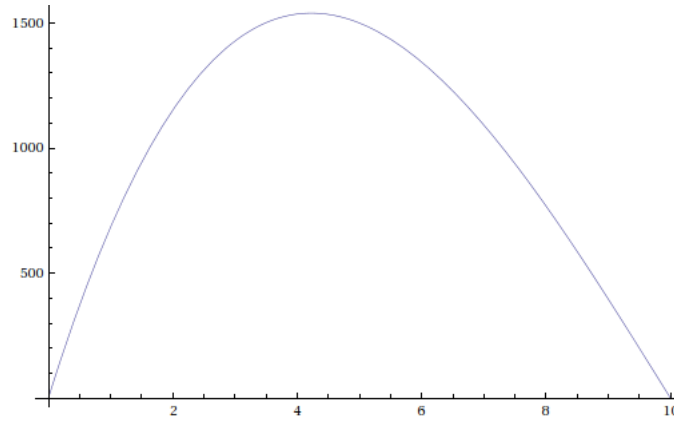


Local extrema: $(-2, 25)$, $(2, -7)$.

3.1.79 (a) $V(x) = x(20 - 2x)(40 - 2x)$

(b) $D_f = \{x : 0 < x < 10\}$

(c) The graph:



Maxima: $\left(\frac{10}{3}(3 - \sqrt{3}), \frac{8000}{3\sqrt{3}}\right) \approx (4.23, 1539.6)$.