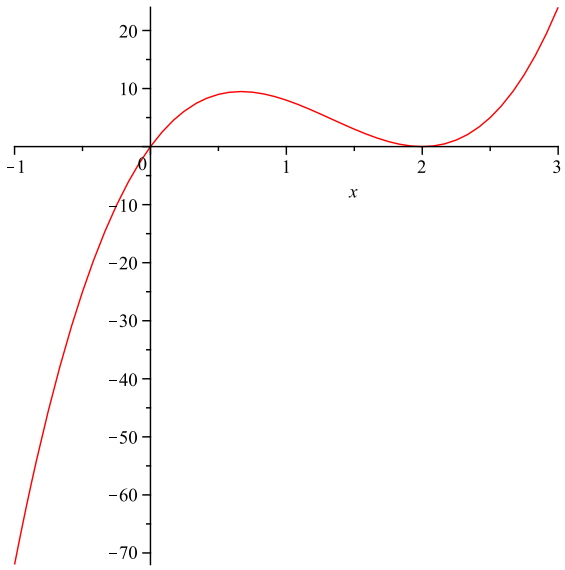
1. 

2. $p(q) = 13 - q$

3. A.) $x = b, d$, B.) $x = b, c$, C.) $(a, b) \cup (b, d)$, D.) (d, e), E.) (b, d), F.) $(a, b) \cup (d, e)$

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5. $k = -0.0866$

6. $f(12) \approx 206$

7. (a) $y' = .16x - \dfrac{2}{3} - 10x^{-3}$, (b) $y' = 5^x \cdot \ln 5$, (c) $y' = 2xe^{x^2+1}$, (d) $y' = 2x \ln x + x$

8. $y = 12x - 16$

9. $\pi(q)$ is increasing on $(-\infty, 75)$ and decreasing on $(75, \infty)$, therefore the profit is maximized when $q = 75$.

10. We are unable to do this problem at this time. Don't worry about this one.