1. Let $f(x) = \frac{1}{2}x^3 - 4x^2 - 2x + 5$

   a. Use Nderiv to graph $f(x)$, $f'(x)$, $f''(x)$ on the window $x_{\text{min}} = -5$, $x_{\text{max}} = 10$, $y_{\text{min}} = -50$, $y_{\text{max}} = 10$. (Use different colors for each function.)

   b. Label the relative extremes A and the inflection point B on the graph of $f(x)$. Label the corresponding points $A'$ and $B'$ on the graph of $f'(x)$. Label the corresponding point $B''$ on the graph of $f''(x)$.

2. Let $f(x) = \tan(x)$. Approximate $f'(1.5)$ using Nderiv with $h = .1$ and $h = .05$. Why are the two answers so different? Use the graph of the tangent function given below to help answer why they are different. (Hint: Graph what Nderiv finds on the graph of the tangent function.)