1. Find the antiderivatives of the following functions. You can always verify your answers by graphing $f(x)$ and its antiderivative on the same set of axes.

   (a) $f(x) = \sqrt{x} - 2x + 3$

   (b) $f(x) = x - \dfrac{5}{x^3} + 2x$

   (c) $f(x) = \dfrac{7}{x} - x + 4$

2. Find a function $g(x)$ with a stationary point at $x = 1$.

3. Find a function $h(x)$ with an inflection point at $x = 2$ and a stationary point at $x = 3$.