NAME:

Find the derivative for each of the following functions. Apply the theorems from class instead of beginning with the definition.

1. (4 points) 
$$y = \sqrt{x} + 2x^2 - 13e^x$$

2. (4 points) 
$$f(x) = 7x^4 - 5x^3 + 11x^2 - 5x + 3$$

3. (4 points) 
$$g(x) = \sqrt{32}$$

## 4. The graph below shows the funtion

$$f(t) = 2t^2 + 4t - 2.$$

Find the equation for the tangent line to this curve at the point (-2, -2). Sketch your result on the graph.

