Show all work to receive full credit. Supply explanations when necessary.

1. (4 points) Find an equation of the line tangent to the graph of  $f(x) = 2x^3 - 2x^2 + 1$  at the point where x = 1.

2. (3 points) Let  $s(t) = t^2 + 2 \ln t$ . Find s''(t).

3. (3 points) Find the instantaneous rate of change of  $h(t) = \ln(6t + e^t)$  at t = 0.