Quiz 1

Name:_____

1. Find the first two derivatives of $f(x) = x^2 e^{3x}$

$f'(x) =$

$f''(x) =$

2. Sketch the graph of $f(x) = x^3 - 3x^2 + 2$ showing

   (a) All local maxima and minima

   (b) The intervals where $f(x)$ is convex and the intervals where it is concave.

   (c) All inflection points