Name_____   Section 0251

Answer all problems. There are 10 possible points.

1. Find each of the following:

1.1) (3 pts) $\int \left(5x^3 - 3 + \dfrac{1}{x^2} \right) dx$

1.2) (3pts) $\int \left(\dfrac{1}{x} + e^{3x} \right) dx$

2. (4 pts) Find an equation of the curves whose tangent line has a slope of
   $f'(x) = x^{-2} + 2x$ given that $(1,5)$ is on the curve