Remember to show <u>all</u> of your work.

Problem 1. Find $\lim\limits_{x\to\infty} \dfrac{3x^2}{(2x-1)^2}$

(A grading note on problem 1: you *must* solve this using a "trick" for infinite limits. Simply "noticing" the answer will result in a zero for the question.)

Problem 2. Given $s(t) = t^2 + 5$, find

- The average velocity from $t = 3$ to $t = 4$

- The instantaneous velocity at $t = 3$.