Read each problem **very carefully** before starting to solve it. Each problem is worth 5 points. It is necessary to show **all** your work. Correct answers without explanations are worth 0 points. GOOD LUCK!!

- 1. An object in linear motion is located at position $s(t) = \sqrt{17 4t}$ meters from the origin at time t in seconds.
 - (a) Find the average velocity of the object between t=2 and t=4 seconds.

(b) Find the instantaneous velocity of the object at t = 4 seconds.

2. Find an equation for the tangent line to the graph of $f(x) = x^4 - x^2$ at x = -2.

