

YOUR NAME: _____

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

1. [4 points] Use the limit definition of the derivative to find an equation for the tangent line to $f(x) = \sqrt{1-2x}$ at $x = -4$.

2. [6 points] Compute the derivatives. Please show all steps so I can follow comfortably.

(a) $(2x^3 - 7x^2 + 3x - 11)' =$

(b) $\left(16\sqrt{x^5} - \frac{4}{3\sqrt{x^3}}\right)' =$