Math 151-02 Calculus I - Crawford

Books, notes (in any form), and calculators are not allowed. Show all your work. Good Luck! **1.** (3 pts) If $\tan \theta = 5$ and $\pi \le \theta \le \frac{3\pi}{2}$, use a right triangle to determine $\sin \theta$.

2. (4 pts) Find <u>all</u> solutions to the following equation.

 $\tan(4x) = 1$

3. (4 pts) Find an equation of the tangent line to $y = 2x + 4 - 7\cos x$ at (0, -3).

4. (4 pts) Differentiate the following.

 $y = \left((3x^4 - 2x^3 + 2x)\tan(3x) \right)^4$

[Do not simplify.]