Name: _____ **Quiz 1-B**

Math 151-01 Calculus I – Crawford **03 October 2017**

Books, notes (in any form), and calculators are not allowed. *Show all your work.* Good Luck!

1. (4 pts) Find <u>*all*</u> solutions to the following equation.

$\cos^2 x = \cos x$

2. (3 pts) If $\sec\theta = -4$ and $\pi \leq \theta \leq \dfrac{3\pi}{2}$, use a right triangle to determine $\tan\theta$.

3. (4 pts) Find an equation of the tangent line to $y = 3\cos x + 2\sin x$ at $\left(\frac{\pi}{2}, 2\right)$.

4. (4 pts) Differentiate the following. [Do not simplify.]

$$y = \left(\frac{4x^6 - 3x^2 + 2}{\tan(4x)}\right)^6$$