Part I (due at the beginning of class Thursday, October 30)

See what you can do this problem: find the equation of the tangent line to $7y^2 + x^3y + x = 4$ at the point $(4, 0)$.

Part II: Problems (due at the beginning of class Tuesday, October 28)

1. Create and explain examples of three functions you can't differentiate without the Chain Rule, even after algebraic simplification.

2. Suppose $u(x) = \sqrt{3x^2 + 1}$ and $f(u) = \dfrac{u^2 + 3u^5}{1 - u}$. Use the Chain Rule to find $\dfrac{d}{dx}(f(u(x)))$ without first finding the formula for $f(u(x))$.