## MAT 136 (Calculus I), Quiz 4, Prof. Jim Swift

No notes, no calculators allowed. Do your own work. Name: $\qquad$
Differentiate the following functions. Use a complete sentence for each answer. You do not need to simplify unless instructed to do so.

1. $f(x)=3 x^{2}-5 x+6$
2. $g(x)=\frac{1}{x^{2}}-4 \sqrt{x}$
3. $y=x\left(e^{x}-x^{2}\right)$
4. $h(x)=\frac{x}{x^{2}+2}$. Simplify the derivative.

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