## Derivative Review Worksheet

Thomas R. Cameron August 28, 2025

## 1 Exercises

- I. Use the limit definition of the derivative to find  $\frac{d}{dx} \frac{1}{x}$ .
- II. Use derivative rules to evaluate  $\frac{d}{dx}e^{x^2}\sin\left(\sqrt{x^2+3x+5}\right)$ .
- III. Use implicit differentiation to determine the derivative of  $\arcsin(x)$ .