

Let's be sure that we all agree on the following by doing this exercise and comparing our solutions in class tomorrow.

Exercise ---

1. Using the definition of the derivative,

a) show that $\frac{d}{dx}|x| = -1$ for $x < 0$.

b) show that $\frac{d}{dx}|x| = 1$ for $x > 0$.

2. Find a nice expression for $\frac{d}{dx}|x|$ for $x \neq 0$.
