

Math 135, Calculus 1, Fall 2020

Weekly Quiz 10-07

Show all work: clearly indicate your answer and the reasoning used to arrive at the answer. Unsupported answers may not receive full credit.

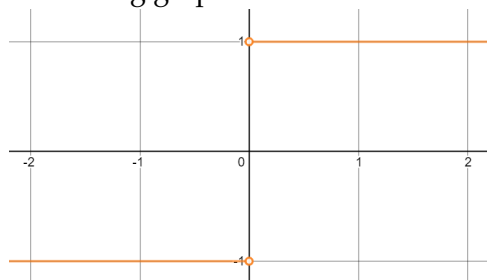
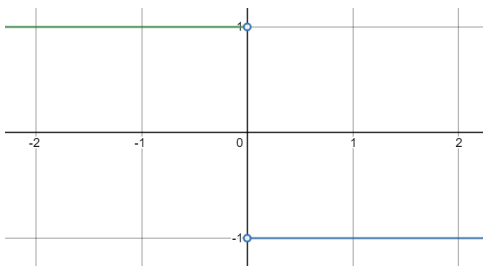
Exercise 1. Let $f(x)$ be the function

$$f(x) = \begin{cases} 2x - 1 & \text{if } x < -1 \\ cx & \text{if } -1 \leq x \leq 2 \\ |x - 2| & \text{if } x > 2. \end{cases}$$

(a) Find the value of c that makes $f(x)$ left-continuous.

(b) Find the value of c that makes $f(x)$ right-continuous.

Exercise 2. Consider the functions $g(x)$ and $h(x)$ with the following graphs:



Compute $\lim_{x \rightarrow 0} (g(x) + h(x))$.