Bellwork 9/9

If a rock is thrown upward on the planet Mars with a velocity of 10 $\frac{m}{s}$, its height in meters t seconds later is given by $y = 10t - 1.86t^2$.

1. Find the average velocity over the given time intervals:
    1. $[1, 1.1]$
    2. $[1, 1.01]$
    3. $[1, 1.001]$
2. Estimate the instantaneous velocity when $t = 1$.

reset

Bellwork 9/9 - Solutions

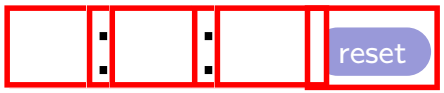
1. 1. $6.094 \frac{m}{s}$
   2. $6.2614 \frac{m}{s}$
   3. $6.27814 \frac{m}{s}$
2. $6.28 \frac{m}{s}$

Exercise 1

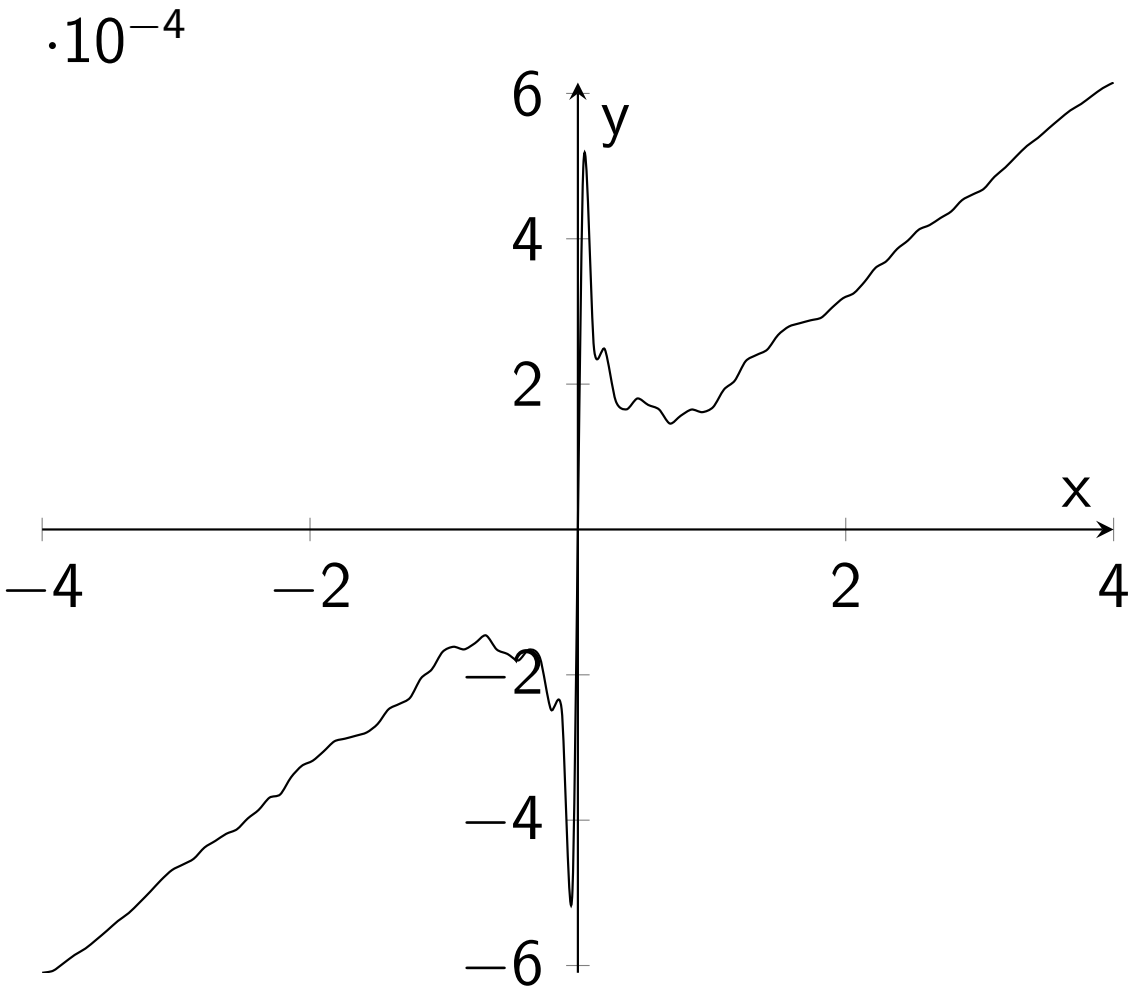
1. Graph $f(x) = \frac{1-\cos(x)}{x}$ on a calculator.
2. Fill in the table:

x	$f(x)$
0.5	
0.1	
0.01	
0.001	

3. Estimate $\lim_{x \to 0} \left[\frac{1 - \cos(x)}{x} \right]$



Exercise 1 - Solutions



1