

Lab 04B

Calculus I

College of the Atlantic. 07 October 2024

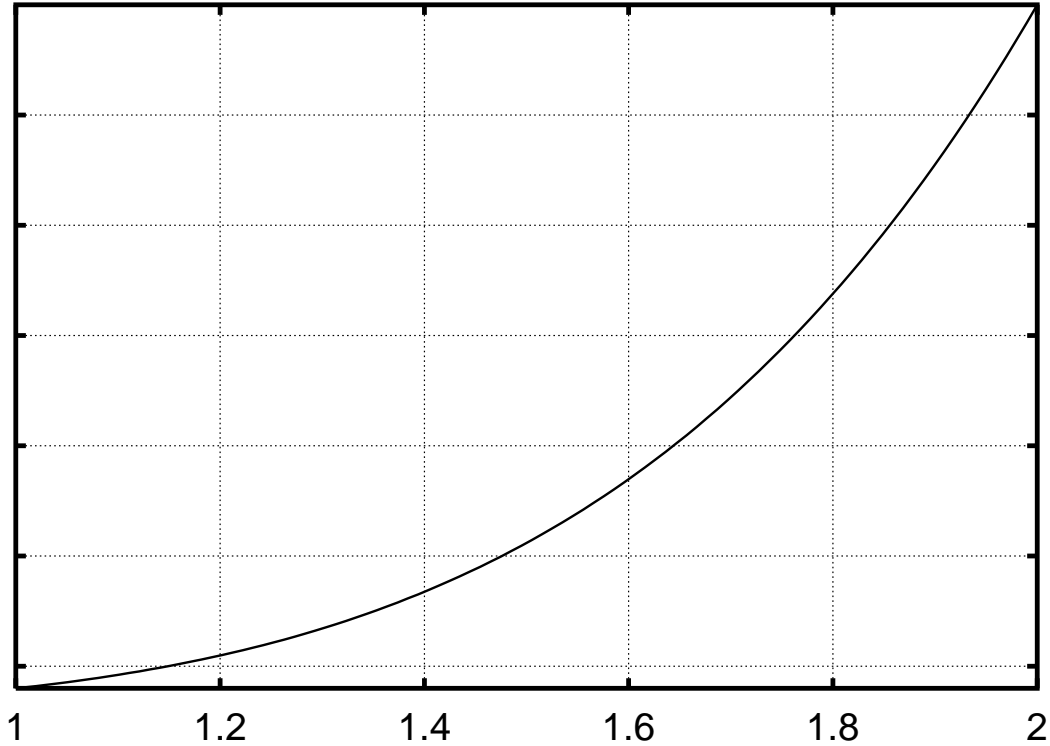


Figure 1: A function

1. Show how to represent the following quantities on Fig. 1.

(a) $f(1.8)$

(b) $f(1.2)$

(c) $f(1.8) - f(1.2)$

(d) $\frac{f(1.8) - f(1.2)}{1.8 - 1.2}$

(e) The instantaneous speed at $t = 1.2$

Which of the above quantities are lengths and which are slopes?

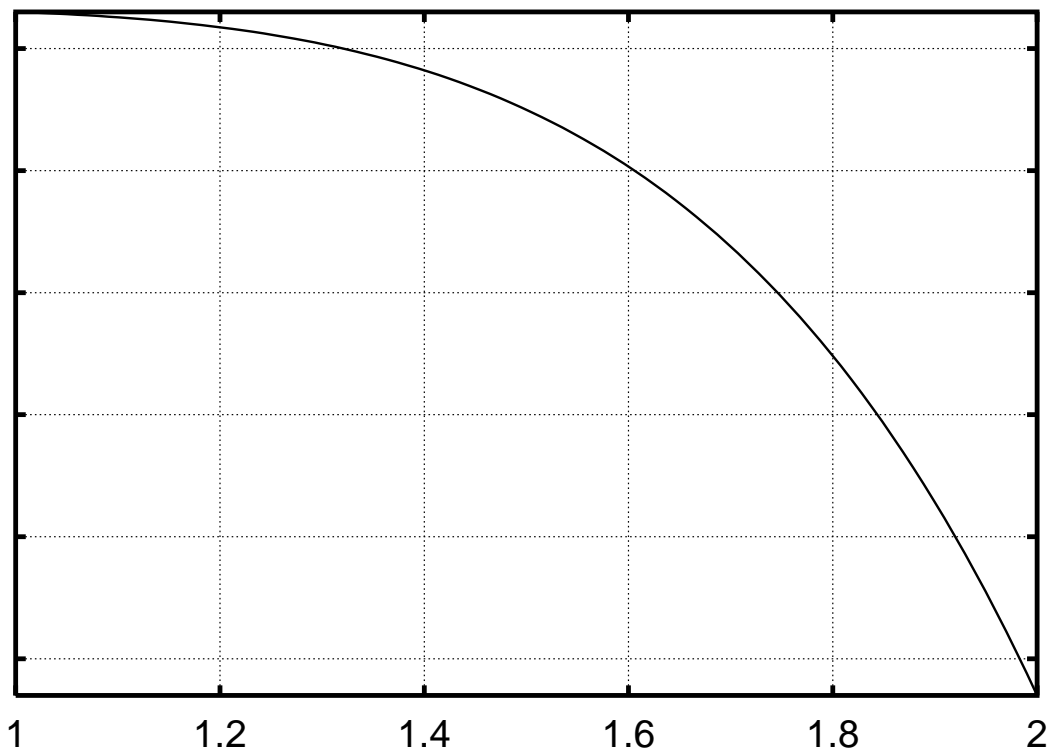


Figure 2: Another function

2. For the function in Fig. 2, determine which of the following pairs of numbers is larger. Note that the y-axis scale might be different than the x-axis scale.
- (a) $f(1.2)$ and $f(1.4)$
 - (b) $f(1.4) - f(1.2)$ and $f(1.6) - f(1.4)$
 - (c) $\frac{f(1.4)-f(1.2)}{1.4-1.2}$ and $\frac{f(1.6)-f(1.4)}{1.6-1.4}$
 - (d) The instantaneous speed at 1.2 and the instantaneous speed at 1.6

Remember that a “bigger negative” number is smaller than a “less negative number.” I.e., $-4 < -2$.

Check in with me or a TA before you go.