

Group work: Graphical interpretations of symbols

Math 163A Section 01 (Barsamian) February 4, 2005

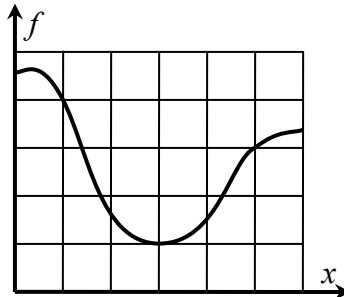
Each expression in the left column represents a number, a number that is the slope of a line on the graph of the function f . In each case, draw the line on the graph of f , or write the missing expression based on the line shown in the graph, and then give the value of the number represented by the expression.

Expression representing some number

Line whose slope is that number

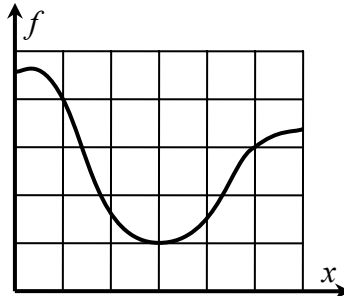
The number

the average rate of change of f as the input changes from 1 to 5



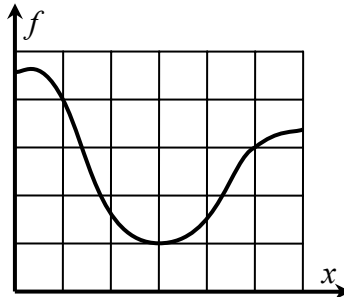
number =

the derivative of f at $x = 1$



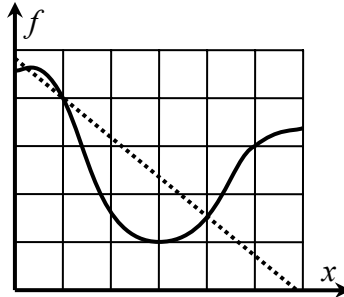
number =

the instantaneous rate of change of f at $x = 4$

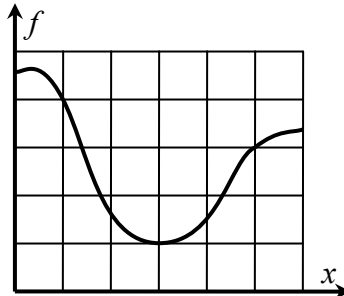


number =

$$\lim_{h \rightarrow 0} \frac{f(3+h) - f(3)}{h}$$



number =



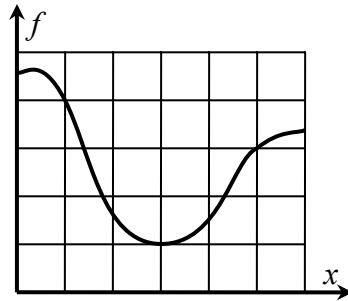
number =

Expression representing some number

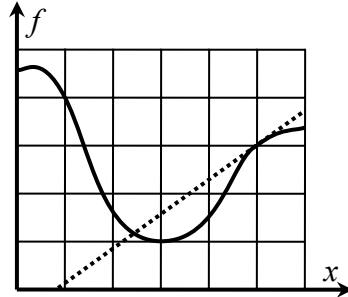
Line whose slope is that number

The number

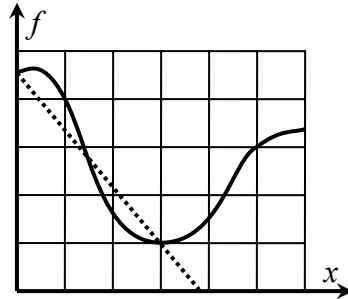
$$\frac{f(4) - f(2)}{4 - 2}$$



number =

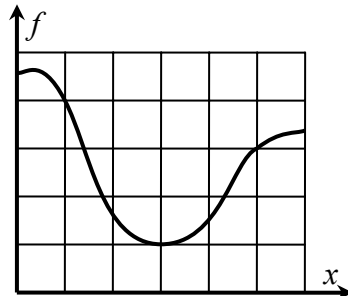


number =

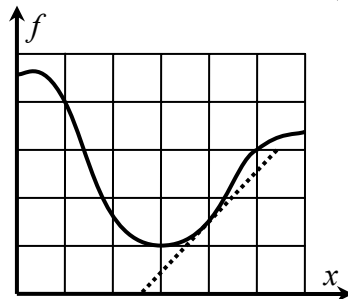


number =

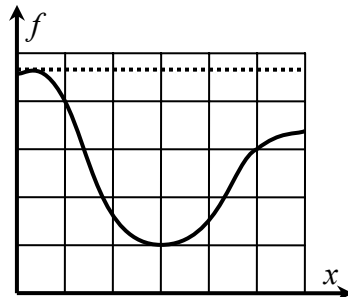
$$f'(2)$$



number =



number =



number =