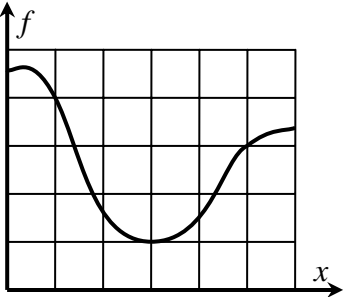
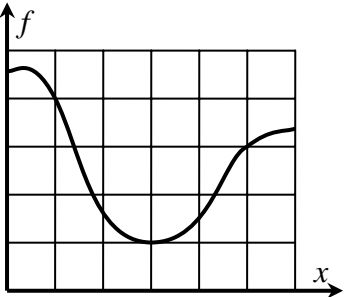
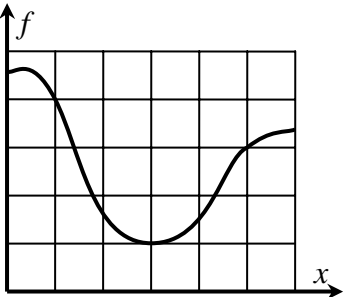
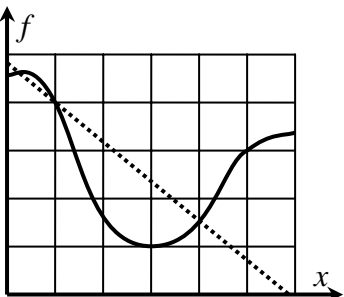
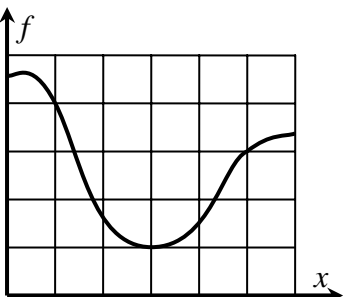


**Math 266A Section 01 (Barsamian) Group Work 3: Representations of Slopes**

Print names:

Thursday, 16 February, 2006

The expressions in the left column are meant to represent a number  $m$ , 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  $m$  represented by the expression.

<u>Example</u>	<u>Expression representing the number <math>m</math></u>	<u>Line whose slope is the number <math>m</math></u>	<u>The number <math>m</math></u>
(1)	the average rate of change of $f$ as the input changes from 1 to 5		$m =$
(2)	the derivative of $f$ at $x = 1$		$m =$
(3)	the instantaneous rate of change of $f$ at $x = 4$		$m =$
(4)			$m =$
(5)	$\lim_{h \rightarrow 0} \frac{f(3+h) - f(3)}{h}$		$m =$

Example

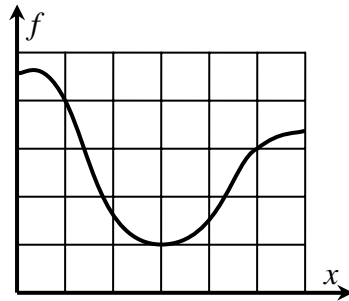
Expression representing the number  $m$

Line whose slope is the number  $m$

The number  $m$

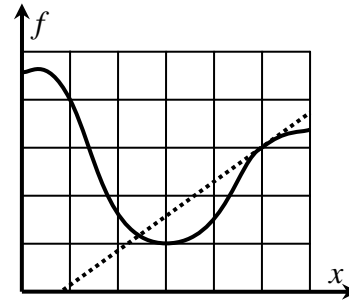
(6)

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



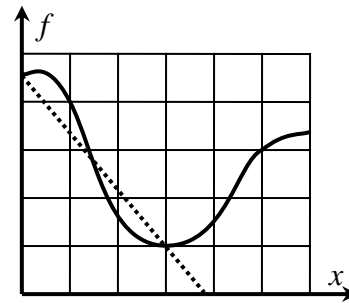
$m =$

(7)



$m =$

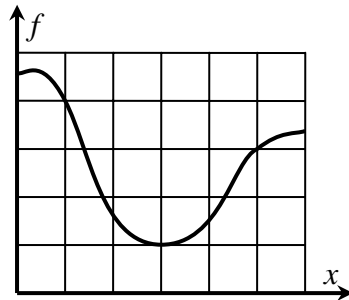
(8)



$m =$

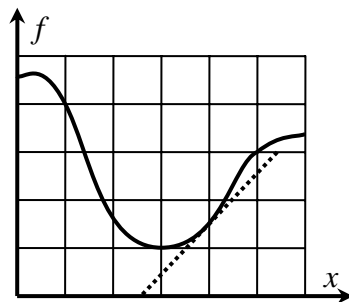
(9)

$$f'(2)$$



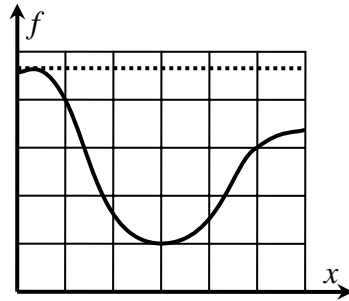
$m =$

(10)



$m =$

(11)



$m =$