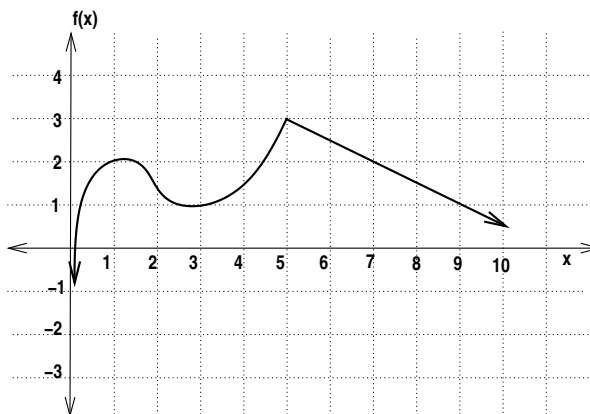


This assignment is due by 5:00 pm on January 25, 2007 You can turn it in to me in class or drop it by the office, **Blocker 640D**. Be sure that you follow the homework rules, they can be found on your syllabus. Please work the problems in the order that they are listed.

Use the graph of $f(x)$ to answer questions 1 and 2. If necessary give the best approximation.



1. (a) $f(4)$
(b) $f(8)$
2. (a) Find the values of x where $f(x) = 2$
(b) Find the average rate of change from $x = 3$ to $x = 7$

3. (a) Find the equation of the line through the points $(144, 299)$ and $(236, 644)$.
(b) Find the slope and the horizontal intercept for $7x + 3y - 210 = 0$

4. The table gives the average weight, w , in pounds of guys in their sixties for various heights, h , in inches.

h (inches)	68	69	71	72	75
w (pounds)	163	174	181	189	203

- (a) Find the best fitting formula with weight as a linear function of height.
- (b) Predict the average weight of a guy 6 feet tall.
5. The values of $f(x)$, $g(x)$, and $h(x)$ are given in this table. Classify the each graph as concave up, concave down, or linear.

x	$f(x)$	$g(x)$	$h(x)$
1	7	7	7
3	8	11	17
7	12	19	29
10	17	25	36
17	35	39	42

6. The graph shows the balance, B in dollars, of a bank account over time, t , in years.

- (a) Give the vertical intercept and interpret this value.
- (b) Find the average rate of change over the first 4 years of the account. Give units with your answer.
- (c) Give the interpretation of the answer in part b.

