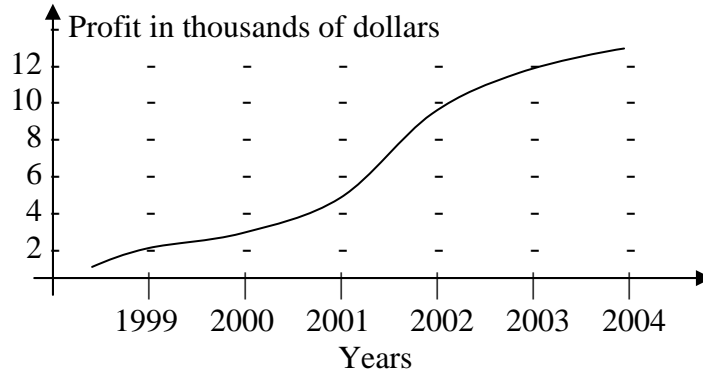


SMTH 121A Practice Test 1
(Kime text)

1.



- (a) How long did it take to increase profit from \$2000 to \$10,000? _____
 (b) In what year did profit increase the most? _____

2. Five students worked for a garden shop. One week, their payroll data looked like this:

Hours Worked:	10	12	28	35	35
Paycheck in \$:	56.00	67.60	160.40	201.00	201.00

- (a) Find the median hours worked: _____
 (b) Find the mean hours worked: _____
 (c) Find the function that describes paycheck (Y) when hours worked (X) is given:

 (d) What paycheck would 15 working hours yield? _____
 (e) How many hours worked would yield a paycheck of \$172.00? _____
 (f) The students all decided to donate the same amount by payroll deduction each week to a homeless shelter. How much was that amount? _____

3. In this problem, express all answers in fractions. If $f(x) = \frac{8}{3x-6}$, find the following: $f(0) =$ _____ $f(1) =$ _____

$f(2) =$ _____ $f(-2) =$ _____

4. Consider this data:

Study Time	3	4	4.5	6	8
Test Score	62	71	76	84	96

- (a) What is the average rate of change of test score from 3 to 6 hours of study time? _____
 (b) Is Test Score a **linear function** of Study Time? _____ Why or why not?

 (c) Use your calculator to produce the best fit line to compute test score (Y) from study time (X) Write your function here: _____
 (d) How long must someone study to expect to score 80? _____
 (e) What score does the function predict for seven hours of study? _____

5. Find the equation for the line

(a) Through (0,4) with slope $3/5$. _____

(b) Through (-5,4) with slope $3/5$. _____

(c) Through (3,7) and (5,2). _____

(d) Through (3,7) and parallel to $3x + 2y = 5$. _____

(e) Through (3,7) and perpendicular to $3x + 2y = 5$. _____