Lesson #16- Test Tuesday
Cw. page 3,4 of packet. My big FTC problem-
HW/ Mr leckie review #1-4 (on ch 6 homework page)

1       $A(t) = 12t - 18$, $at\ t = 1\ the\ velocity\ is\ v(1) = 0$

a.   Find the velocity expression

b.   Set up, but do not evaluate the integral expression that will find the displacement of the particle on the interval [0,3]

c.   Set up, but do not evaluate the integral expression that will find the total distance travelled by the particle on the interval [0,3]

d. Set up, but do not evaluate the integral expression that will give you the average velocity of the particle. [0,3]

The figure above shows the graph of the piecewise-linear function f. For $-4 \le x \le 12$, the function g is defined by
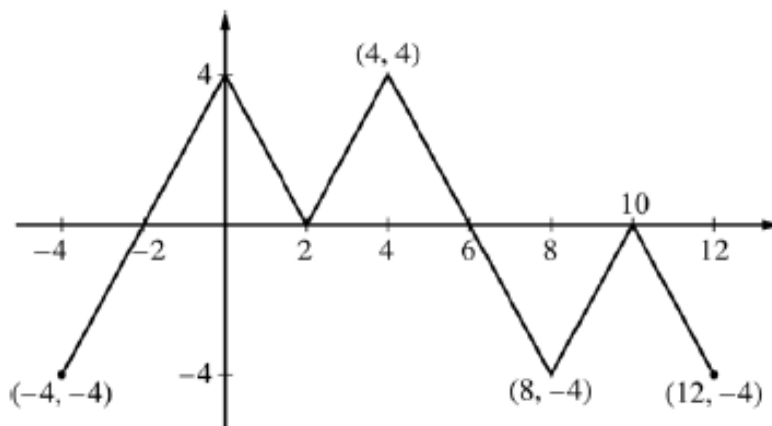
$$g(x) = \int_2^x f(t)\,dt.$$

(a) Does g have a relative minimum, a relative maximum, or neither at $x = 10$? Justify your answer.

(b) Does the graph of g have a point of inflection at $x = 4$? Justify your answer.

(c) Find the absolute minimum value and the absolute maximum value of g on the interval $-4 \le x \le 12$. Justify your answers.

(d) For $-4 \le x \le 12$, find all intervals for which $g(x) \le 0$.

Graph of f