

NAME: _____

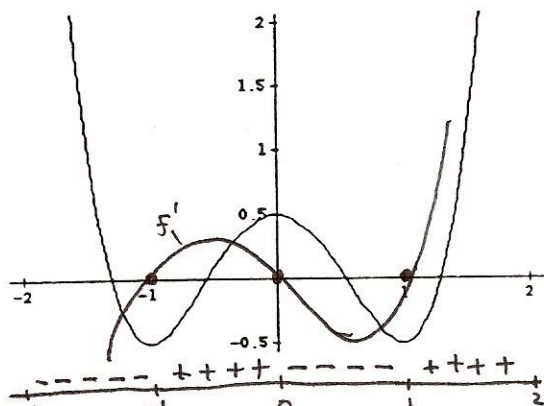
HOMEWORK FOR WORKSHEET 5

MATH 1300

DUE February 15, 2008

Below are the graphs of some functions. Indicate on which intervals the functions are increasing and on which intervals they are decreasing. Then, on the same coordinate axes, sketch the graph of each function's derivative.

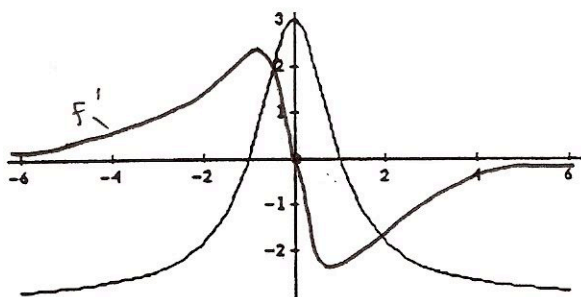
a.



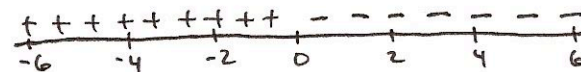
sign of
 f'

increasing: $(-1, 0) \cup (1, +\infty)$; decreasing: $(-\infty, -1) \cup (0, 1)$

c.



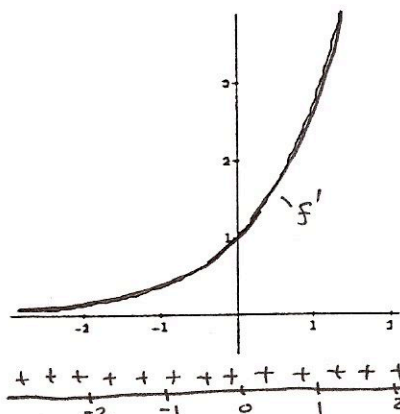
f' :



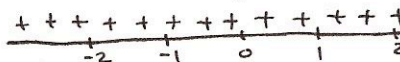
increasing: $(-\infty, 0)$

decreasing: $(0, +\infty)$

b.

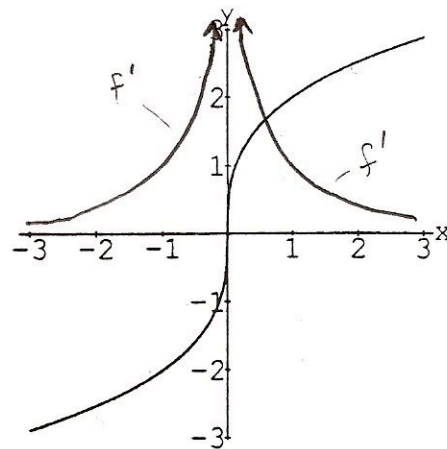


f' :

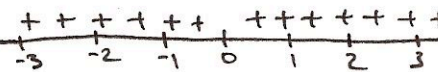


increasing: $(-\infty, \infty)$

d.



f' :

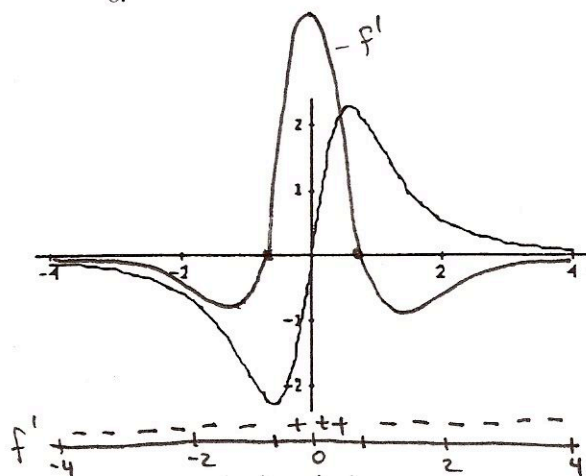


increasing: $(-\infty, 0) \cup (0, +\infty)$

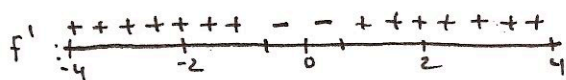
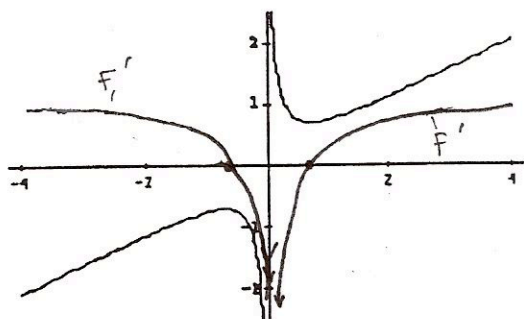
f' undefined @ $x=0$.

Continued.

e.



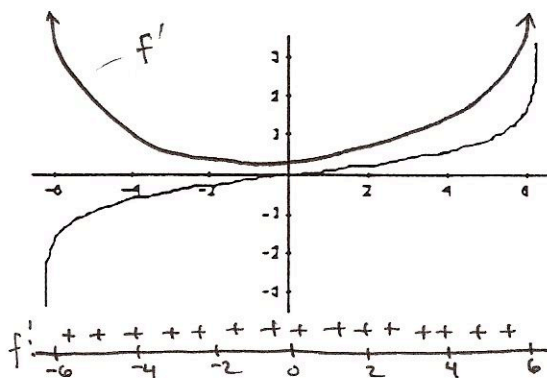
increasing: $(-\frac{1}{2}, \frac{1}{2})$
 decreasing: $(-\infty, -\frac{1}{2}) \cup (\frac{1}{2}, +\infty)$
 g.



increasing: $(-\infty, \frac{1}{2}) \cup (\frac{1}{2}, +\infty)$
 decreasing: $(-\frac{1}{2}, 0) \cup (0, \frac{1}{2})$

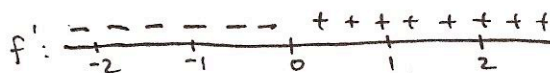
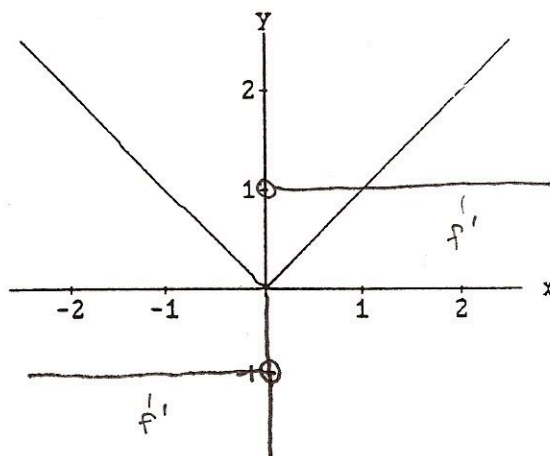
f' undefined @ $x=0$.

f.



increasing: $(-\infty, \infty)$

h.



increasing: $(0, +\infty)$

decreasing: $(-\infty, 0)$