



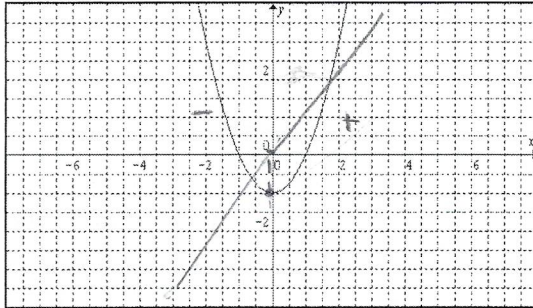
Applying the First Derivative Test  
By: Lucy Solís



Name HANNIA LARISSA GÓMEZ W. Group 401 Date NOV.10

I. Use the graph to find the intervals in which the graph of  $f(x)$  is increasing or decreasing and sketch the derivative

1)

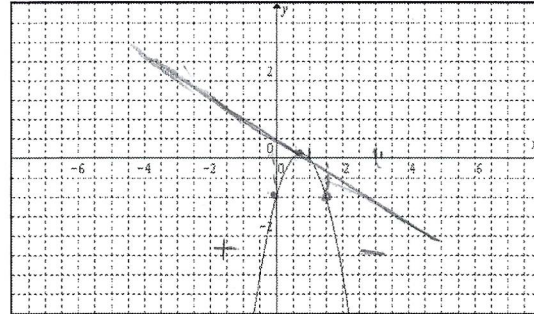


1)

$f(x)$  is increasing:  $(0, \infty)$

$f(x)$  is decreasing:  $(-\infty, 0)$

2)

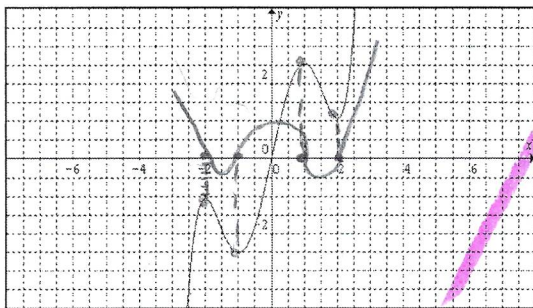


2)

$f(x)$  is increasing:  $(-\infty, 0.75)$

$f(x)$  is decreasing:  $(0.75, -\infty)$

3)

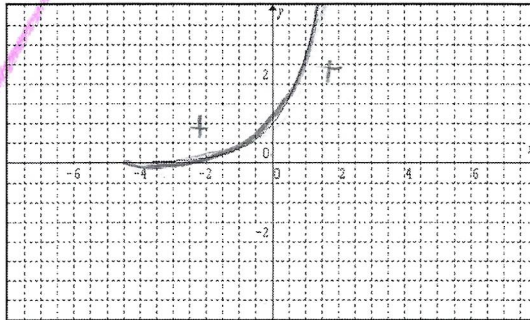


3)

$f(x)$  is increasing:  $(-\infty, -2), (-1, 1), (2, \infty)$

$f(x)$  is decreasing:  $(-2, -1), (1, 2)$

4)

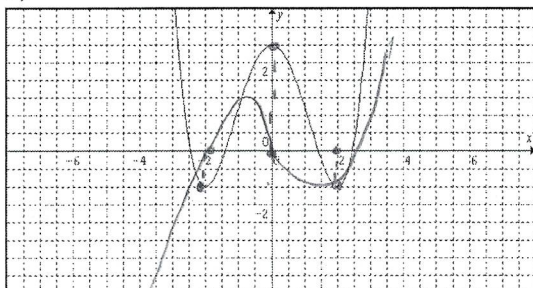


4)

$f(x)$  is increasing:  $(-\infty, \infty)$

$f(x)$  is decreasing:  $\emptyset$

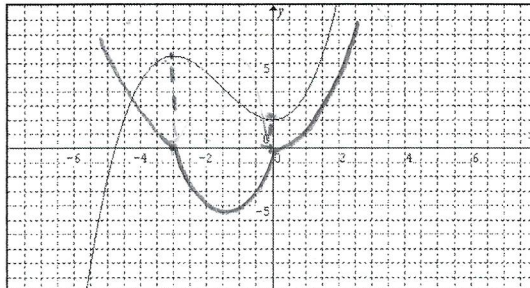
5)



$f(x)$  is increasing:  $(-2, 0), (2, \infty)$

$f(x)$  is decreasing:  $(-\infty, -2), (0, 2)$

6)



$f(x)$  is increasing:  $(-\infty, -3), (0, \infty)$

$f(x)$  is decreasing:  $(-3, 0)$