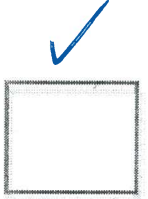


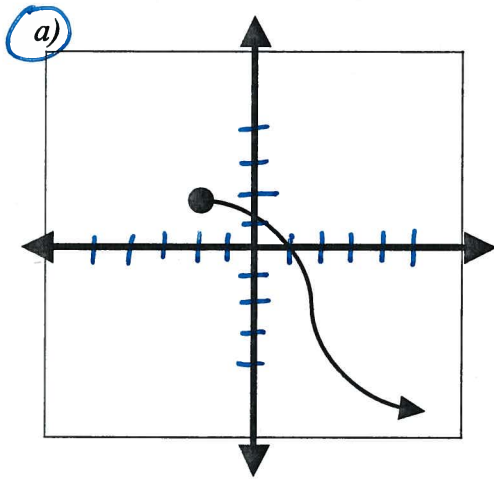
HOMWORK: KEY FEATURES OF FUNCTIONS



DAY 4

NAME: _____

1) State the domain and range for each of the following graphs. Then, state the intervals where the function is increasing and where the function is decreasing.

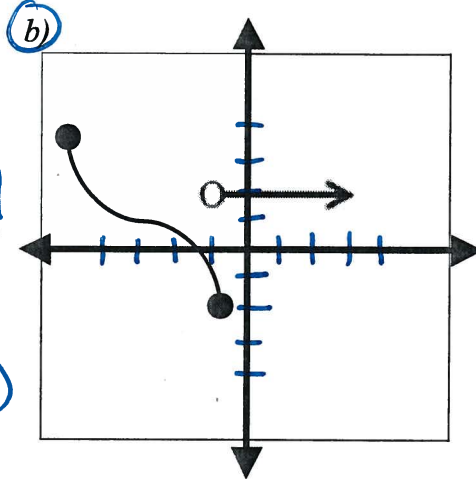


D: $[-2, \infty)$

R: $(-\infty, 2]$

Inc: N/A

Dec: $(-2, \infty)$



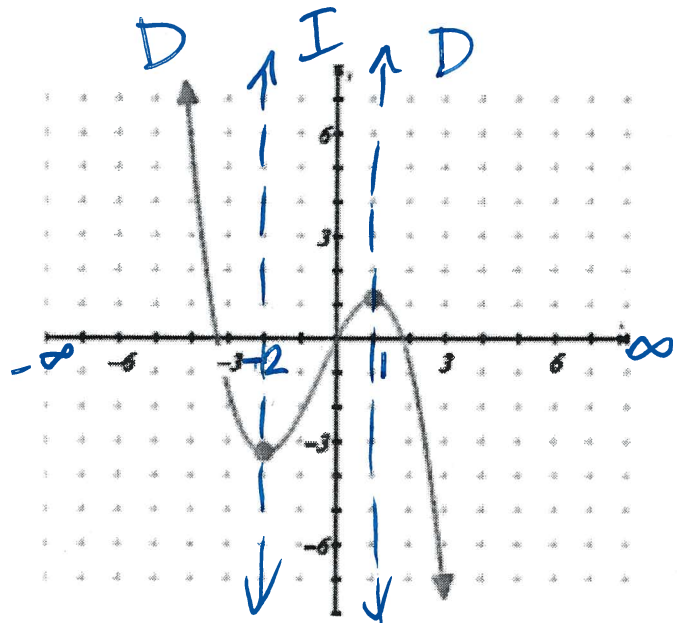
D: $[-5, \infty)$

R: $[-2, 4]$

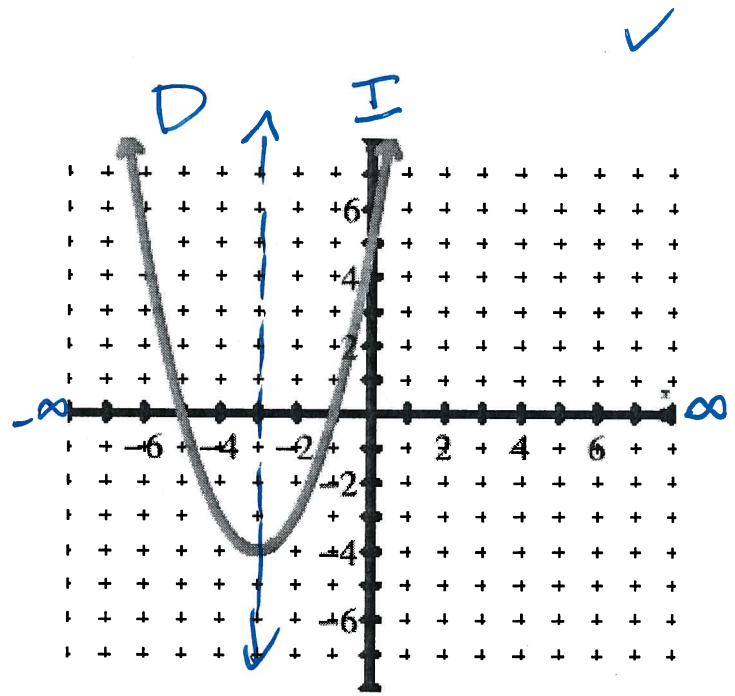
Inc: N/A

Dec: $(-5, -1)$

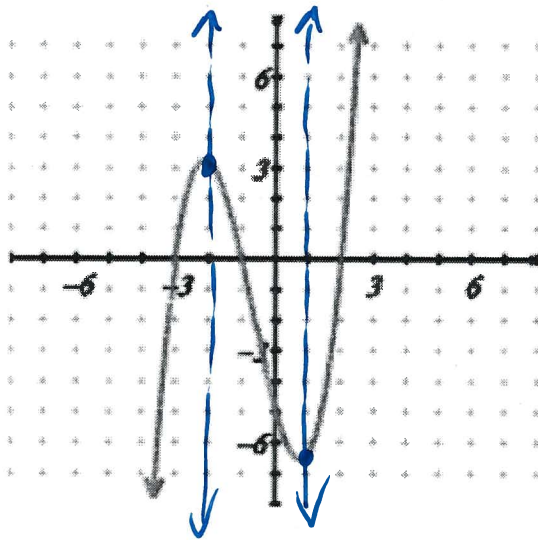
2. Domain: $(-\infty, \infty)$
 Range: $(-\infty, \infty)$
 Increasing: $(-2, 1)$
 Decreasing: $(-\infty, -2) \cup (1, \infty)$
 Relative Max: 1
 Relative Min: -3
 Absolute Max: Does not exist
 Absolute Min: Does not exist



3. Domain: $(-\infty, \infty)$
 Range: $[-4, \infty)$
 Increasing: $(-3, \infty)$
 Decreasing: $(-\infty, -3)$
 Relative Max: Does not exist
 Relative Min: -4
 Absolute Max: Does not exist
 Absolute Min: -4



4. Where is the function increasing?



A. $(-\infty, -2) \cup (1, \infty)$

B. $(-\infty, 3) \cup (-6, \infty)$

C. $(-2, 1)$

D. $(-6, 3)$

- a. Determine the number of real zeros for the polynomial 3
- b. Determine the number of turning points 2
- c. Where does the graph have relative minimums or maximums? min: -6
max: 3
- d. Where does the graph have absolute minimums or maximums? Does not exist