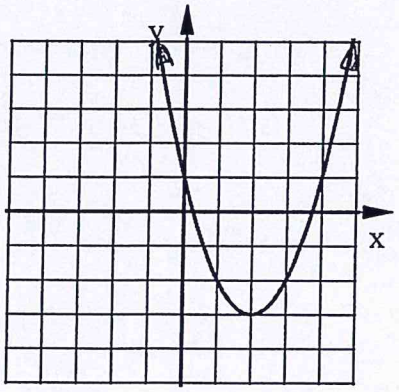
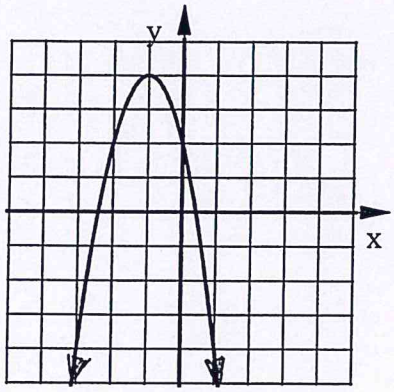
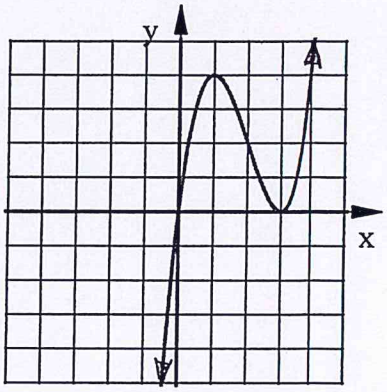
Bellwork Alg 2 Tuesday, October 22, 2019

Use these three graphs:

A. $y = x^2 - 4x + 1$ B. $y = -2x^2 - 4x + 2$ C. $y = x^3 - 6x^2 + 9x$







1. State the intervals of x – *values* where each graph is increasing and where each is decreasing. Remember, the domain of all polynomials is $(-\infty, \infty)$.

Graph A: Increasing Decreasing

Graph B: Increasing Decreasing

Graph C: Increasing Decreasing

2. State the largest and smallest value of each function and for what value of x each occurs.

Graph A: Largest value = Smallest value =
occurs when x = occurs when x =

Graph B: Largest value = Smallest value =
occurs when x = occurs when x =

Graph C: Largest value = Smallest value =
occurs when x = occurs when x =

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B ANSWERS

Use these three graphs:

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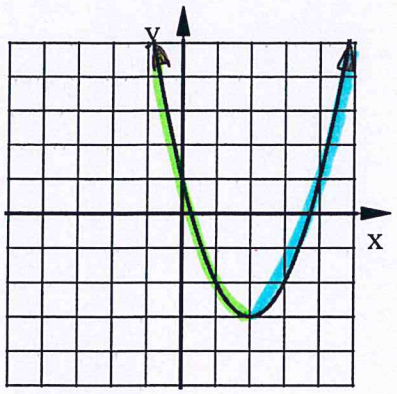

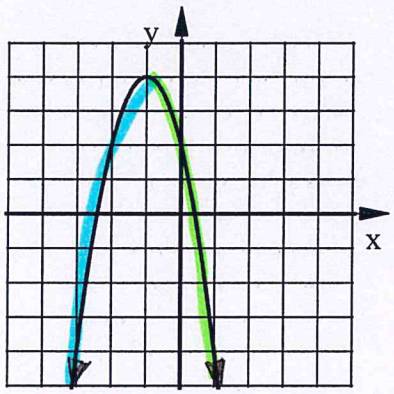

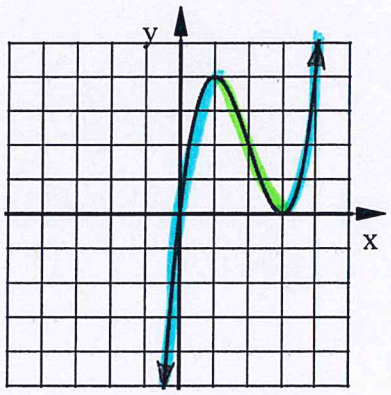

1. State the intervals of x – *values* where each graph is increasing and where each is decreasing. Remember, the domain of all polynomials is $(-\infty, \infty)$.

Graph A: Increasing $(2, \infty)$ Decreasing $(-\infty, 2)$

Graph B: Increasing $(-\infty, -1)$ Decreasing $(-1, \infty)$

Graph C: Increasing $(-\infty, 1) \cup (3, \infty)$ Decreasing $(1, 3)$

2. State the largest and smallest value of each function and for what value of x each occurs.

Graph A: Largest value = NONE occurs when x = Smallest value = -3 occurs when x = 2

Graph B: Largest value = 4 occurs when x = -1 Smallest value = NONE occurs when x =

Graph C: Largest value = NONE occurs when x = Smallest value = NONE occurs when x =