Math 2A   Name_____
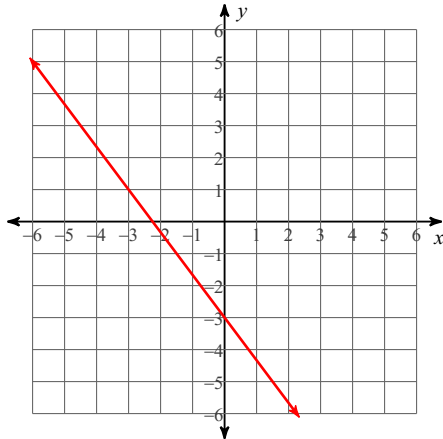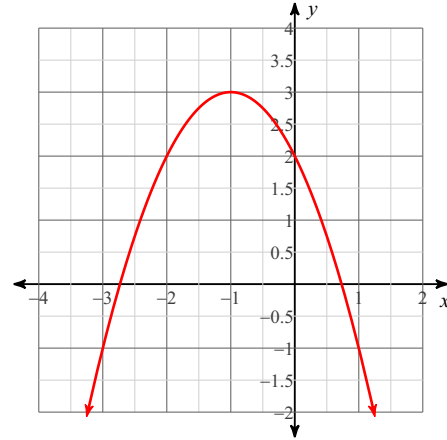
4.3 Key Features of Graphs   Period_____

State the x and y intercepts of the following graphs.
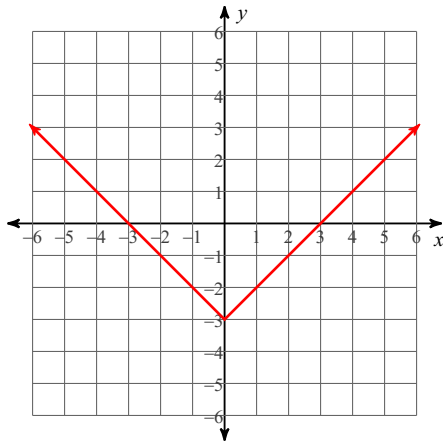
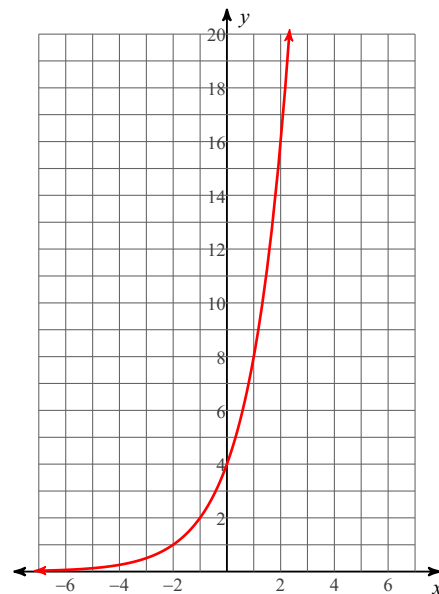1) $y = -\dfrac{4}{3}x - 3$

2) $y = -(x + 1)^2 + 3$

State the intervals where the functions below are increasing and decreasing
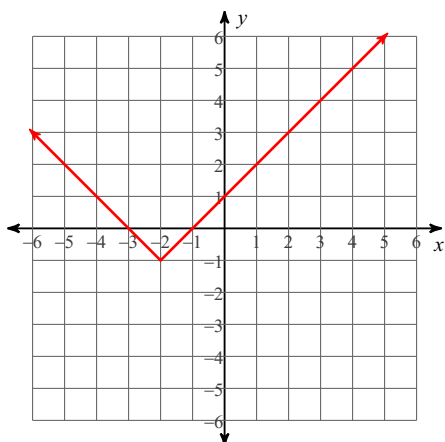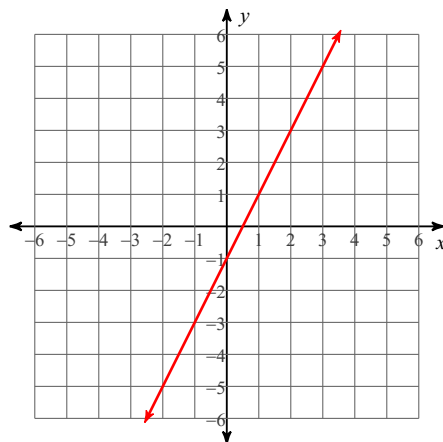
3) $y = |x| - 3$

4) $y = 4 \cdot 2^x$

State the intervals where the functions below are positive and negative.
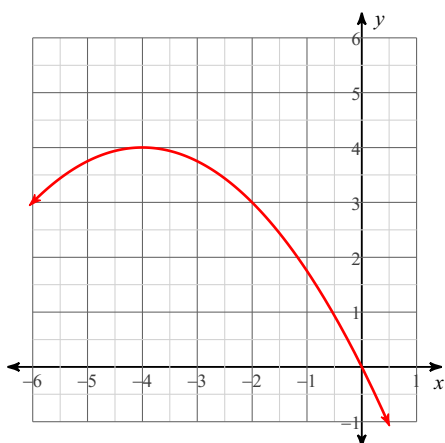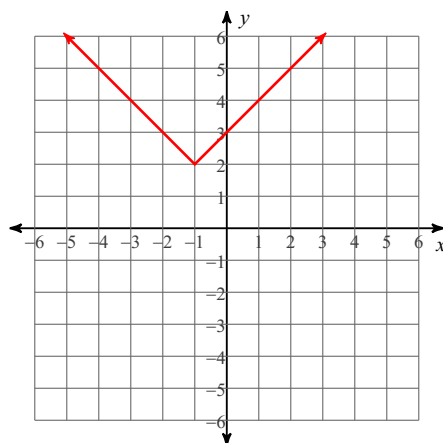
5) $y = |x + 2| - 1$

6) $2x - y = 1$

State the relative minimums and/or maximums of the functions below.

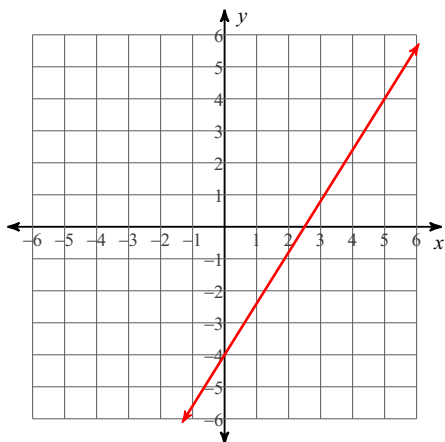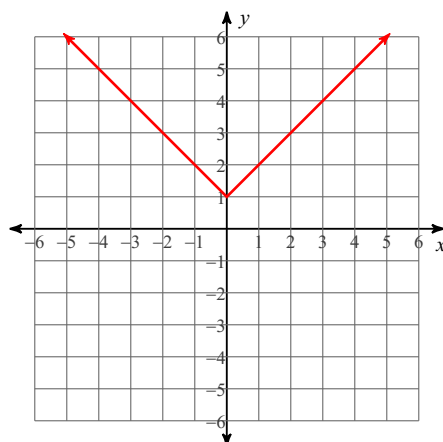7) $y = -\dfrac{1}{4}x^2 - 2x$

8) $y = |x + 1| + 2$

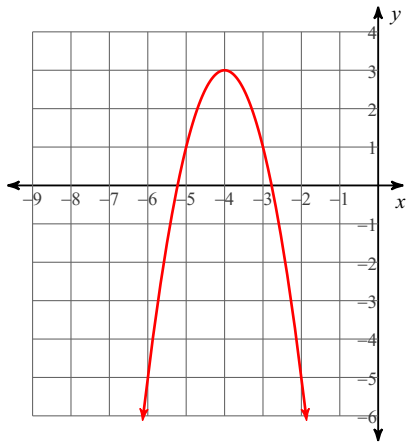**State the end behavior of the functions below.**
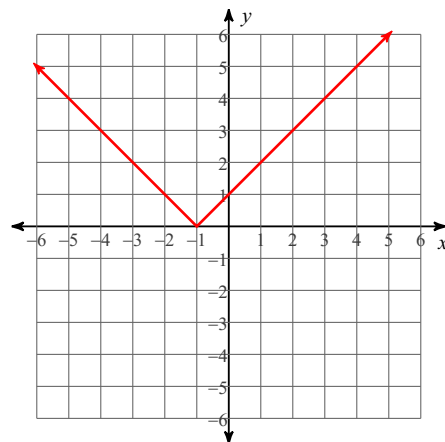
9) $8x - 5y = 20$

10) $y = |x| + 1$

Decide if the functions below are even or odd and state the line of symmetry for each.
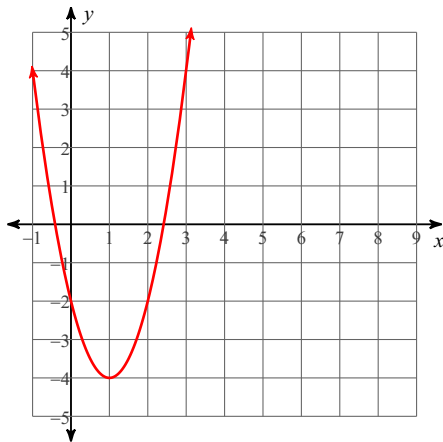
11) $y = -2x^2 - 16x - 29$

12) $y = |x + 1|$

Sketch the graph of each function and state its' key features. (intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; even or odd; symmetries; end behavior;)

13) $y = 2(x - 1)^2 - 4$

14) $y = (x + 2)^2 - 2$