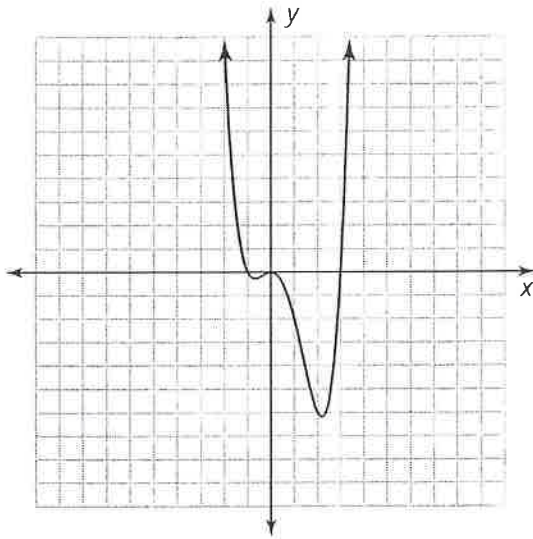


B. Circle the function(s) that could model each graph. Describe your reasoning for either eliminating or choosing each function.

1.

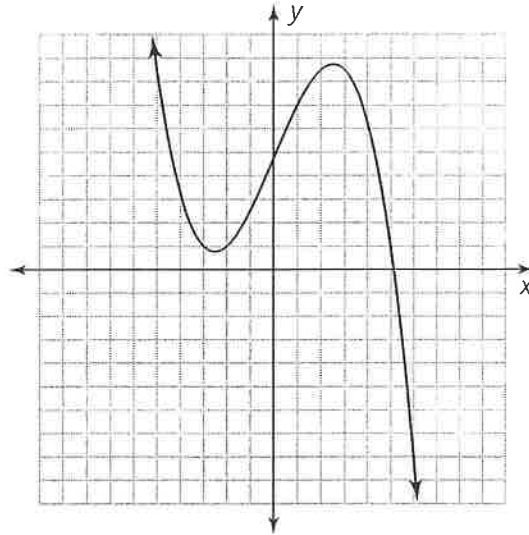


$$f(x) = x^4 - 2x^3 - 3x^2$$

$$f(x) = -2x^4 - 3x^2 - x$$

$$f(x) = 2(x - 2)(x + 3)(x + 1)$$

2.



$$f(x) = 4x^6 + 2x^3 - 1$$

$$f(x) = (x + 2)(x - 5)(x + 3) + 2$$

$$f(x) = -0.25(x + 2)(x - 5)(x + 3) + 2$$

Also, for #'s 1-2 write the end behavior.

1.) As $x \rightarrow \dots$, $y \rightarrow \dots$

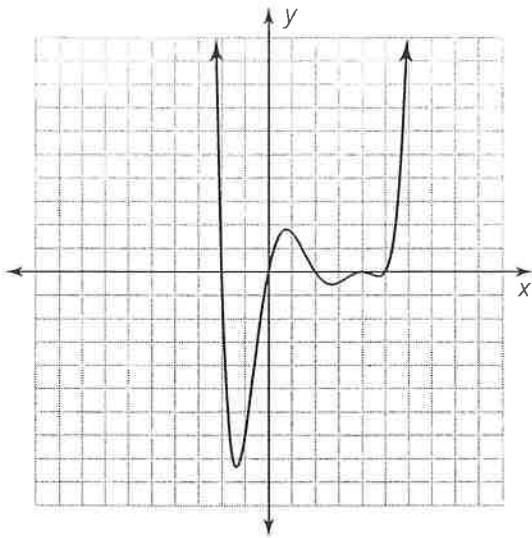
As $x \rightarrow \dots$, $y \rightarrow \dots$

2.) As $x \rightarrow \dots$, $y \rightarrow \dots$

As $x \rightarrow \dots$, $y \rightarrow \dots$

Name _____ Date _____

3.

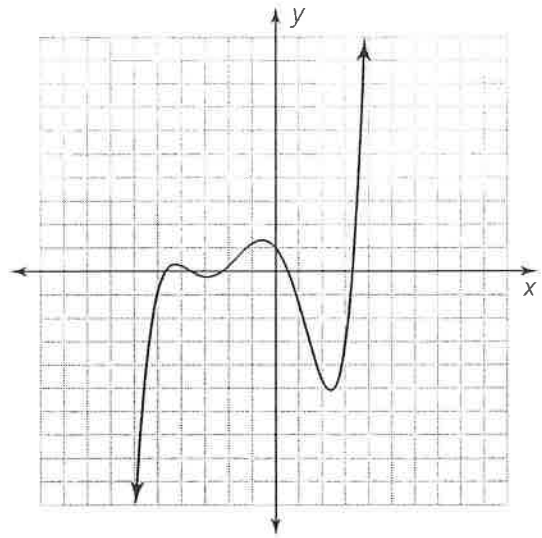


$$f(x) = -2x^6 - 13x^5 + 20x$$

$$f(x) = 2x^6 - 13x^5 + 26x^4 - 7x^3 - 28x^2 + 20x$$

$$f(x) = 2x(x + 7)(x - 4)(x + 3)(x - 2) - 3$$

4.

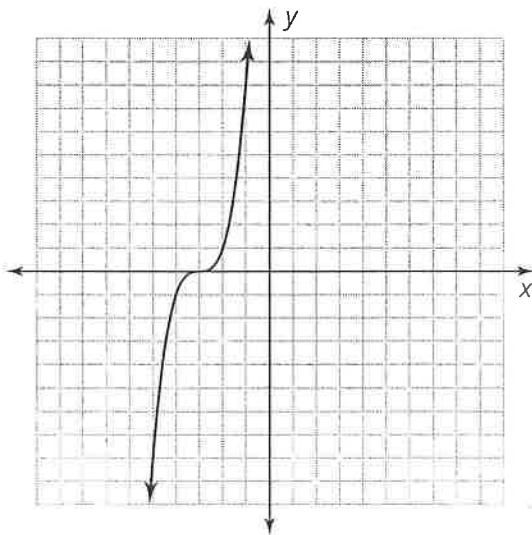


$$f(x) = 3x^5 + 20x^4 - 10x^3 - 240x^2 - 250x + 200$$

$$f(x) = (2x - 3)(x + 4)(x - 10)(x + 14) + 20$$

$$f(x) = -3x^7 + 15x^6 - 20x^2 + 125x - 150$$

5.

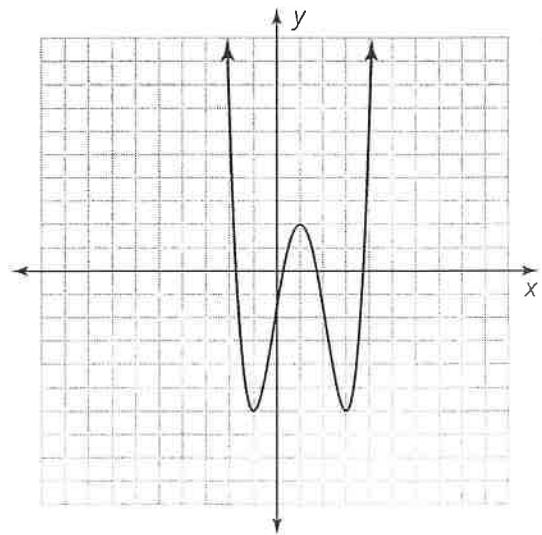


$$f(x) = -x^3 + 2x^2 - x + 3$$

$$f(x) = \frac{1}{2}x(x + 3)^3$$

$$f(x) = (x + 3)^3$$

6.



$$f(x) = x^4 - 4x^3 - 2x^2 + 12x - 3$$

$$f(x) = 2(x + 3)(x + 4)$$

$$f(x) = -2x^5 + x^4 - 3x^3 + 12$$