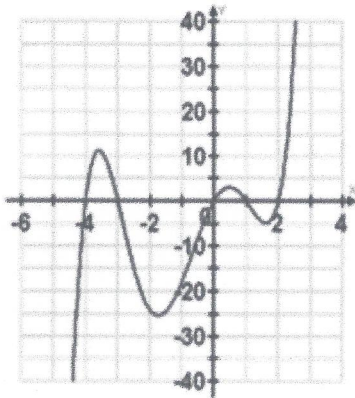


**Unit 3B Learning Targets:**

1. I can identify the x & y intercepts, domain & range, end behavior, turning points, intervals of increasing & decreasing, and even/odd function graphically.



x-intercept(s) = _____	y-intercept = _____
Domain = _____	Range = _____
As $x \rightarrow \infty$ , $f(x) \rightarrow$ _____	As $x \rightarrow -\infty$ , $f(x) \rightarrow$ _____
Relative Maximum(s) _____	Relative Minimum(s) _____
Absolute Maximum: _____	Absolute Minimum: _____
Intervals of Increasing: _____	Intervals of Decreasing: _____
Even/Odd/Neither: _____	

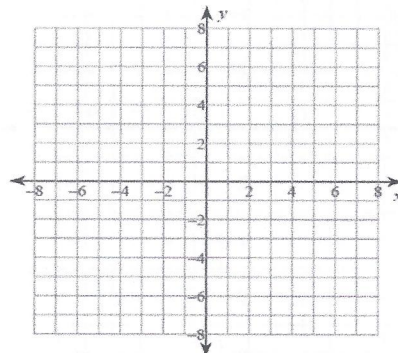
2. I can find the x & y intercepts, end behavior, and even/odd function algebraically

$$F(x) = -x^4 + 4x^2 - 9x^2 + 36$$

- x-intercept(s) = \_\_\_\_\_
- y-intercept = \_\_\_\_\_
- As  $x \rightarrow \infty$ ,  $f(x) \rightarrow$  \_\_\_\_\_  
As  $x \rightarrow -\infty$ ,  $f(x) \rightarrow$  \_\_\_\_\_
- Even/Odd/Neither: \_\_\_\_\_

3. I can sketch the graph of a polynomial given the key characteristics.

Zeros: $x = -5, -1, 1, 3$
Absolute Max: NONE
Absolute Min: $(-3, -7)$
Relative Max: $(0, 6)$
Relative Min: $(2, -4)$
Max Extremas: _____



4. I can graph a polynomial function using technology (i.e. desmos)  $F(x) = x^4 - 5x^2 + 4$

x-intercept(s) = \_\_\_\_\_ y-intercept = \_\_\_\_\_

Domain = \_\_\_\_\_

Range = \_\_\_\_\_

As  $x \rightarrow \infty$ ,  $f(x) \rightarrow$  \_\_\_\_\_ As  $x \rightarrow -\infty$ ,  $f(x) \rightarrow$  \_\_\_\_\_

Relative Maximum(s) \_\_\_\_\_

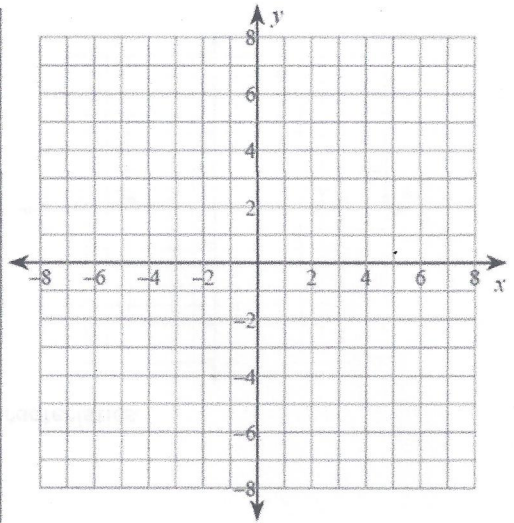
Relative Minimum(s) \_\_\_\_\_

Absolute Maximum: \_\_\_\_\_ Absolute Minimum: \_\_\_\_\_

Intervals of Increasing: \_\_\_\_\_

Intervals of Decreasing: \_\_\_\_\_

Even/Odd/Neither: \_\_\_\_\_



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