

1. State the degree, tell if the leading coefficient is pos or neg, and describe the end-behavior

$$y = -x^2(3x - 1)^3(x + 7)(5 - x)(x + 6)(10 - x)^2$$

Degree = 10

Leading Coefficient is Positive

End Behavior:  $(\uparrow, \uparrow)$

2. State the degree, the leading coefficient, and describe the end-behavior

$$y = -10x^4 + 28x^2 - 4x^7 + 32x + 100$$

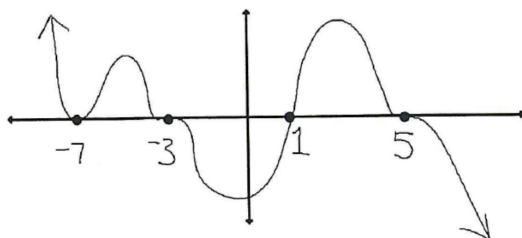
Degree = 7

Leading Coefficient = -4

End-Behavior:  $(\uparrow, \downarrow)$

3. Write a possible equation for this polynomial.

this is a negative odd function



$$y = -(x+7)^2(x+3)^3(x-1)(x-5)^3$$

4. Graph this polynomial:  $y = -x^2(x - 8)^3(x + 3)(x + 6)(2 - x)$

This is a positive even function

