

# Bellwork Alg 2A Thursday, March 30, 2017

State the Degree and Leading Coefficient of each Polynomial.

1.  $y = -6x^3 + 72x^2 + x^5 - 9 + 13x^4$

2.  $f(x) = (6x + 1)^2(3x + 1)(5 - 2x)^3$

Deg=

LC =

Deg =

LC =

3.  $y = (5x^2 + 7)^3(5 - 3x)^2(x + 1)(4x - 9)^2$

Deg=

LC =

State whether the Leading Coefficient is Positive or Negative and if the Degree is Even or Odd.

4.  $f(x) = -8x(x + 3)(7 - 4x)^2(8 - 5x)^3$

5.  $y = (2x + 7)^3(5 - x)(7x - 1)^3(4x + 3)^2(9 - 2x)^3$

Deg: Even or Odd

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LC: Pos or Neg

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State the Degree and Leading Coefficient of each Polynomial.

1.  $y = -6x^3 + 72x^2 + x^5 - 9 + 13x^4$

2.  $f(x) = (6x + 1)^2(3x + 1)(5 - 2x)^3$

Deg= 5

LC = 1

Deg = 6

LC = -864 = -864x<sup>6</sup>

3.  $y = (5x^2 + 7)^3(5 - 3x)^2(x + 1)(4x - 9)^2$

Deg= 11

LC = 18,000

$\rightarrow (5x^2)^3(-3x)^2(x)(4x)^2 = (125x^6)(9x^2)(x)(16x^2) = 18000x^{11}$

State whether the Leading Coefficient is Positive or Negative and if the Degree is Even or Odd.

4.  $f(x) = -8x(x + 3)(7 - 4x)^2(8 - 5x)^3$

5.  $y = (2x + 7)^3(5 - x)(7x - 1)^3(4x + 3)^2(9 - 2x)^3$

Deg: Even or Odd 1 + 1 + 2 + 3 = 7

Deg: Even or Odd 3 + 1 + 3 + 2 + 3 = 12

LC: Pos or Neg

LC: Pos or Neg

$(-)(+)(+)(-) = +$

$(+)(-)(+)(+)(-) = +$