

Bellwork Alg 2 Monday, October 22, 2018

State the Degree and Leading Coefficient of each Polynomial.

1. $y = 8x^2 - 6x^4 + 72x^3 + x^4 - 9 + 5x^4$

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

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

Deg: Even or Odd

Deg: Even or Odd

LC: Pos or Neg

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State the Degree and Leading Coefficient of each Polynomial.

1. $y = 8x^2 - 6x^4 + 72x^3 + x^4 - 9 + 5x^4$

Deg = 3 LC = 72

after combining like terms:

$y = 72x^3 + 8x^2 - 9$

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

Deg = 6 LC = -864

Leading Term: $= (6x)^2(3x)(-2x)^3$
 $= (36x^2)(3x)(-8x^3) = -864x^6$

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

Deg = 11 LC = 18,000

Leading term:

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

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

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

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

Deg: Even or Odd

$x^1 \cdot x^1 \cdot x^2 \cdot x^3 = x^7$

Deg: Even or Odd

$= (x)^3(x)(x)^3(x)^2(x)^3 = x^{12}$

LC: Pos or Neg

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

LC: Pos or Neg

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