

ALG 2 BELLWORK

Monday, November 24, 2014

Find the degree and leading coefficient of each polynomial.

1. $y = -3x^2 + 7x^4 + 29x^3 - 18$

2. $y = 4x^2(3x - 7)^2(8 - 5x)^3(x - 12)$

State if the Leading Coefficient is Pos or Neg and if the Degree is Even or Odd.

3. $y = 6x(5x - 12)^2(2x - 9)(8 - x)^3$

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

State the End-Behavior of each polynomial.

5. $y = 12x^3 - 9x + 3x^2 - 11x^4 + 20$

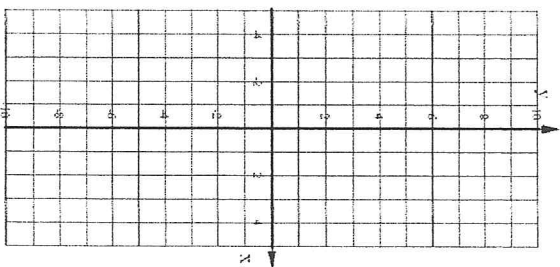
6. $y = -(8x - 7)^2(x + 4)^3(x - 1)(9 - x)$

7. $y = 3x(10x - 7)^2(8x - 15)(x - 6)^2$

8. Graph this function by filling out the table.

$y = (x - 1)^3$

x	y
-1	
0	
1	
2	
3	



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Answers

Find the degree and leading coefficient of each polynomial.

1. $y = -3x^2 + 7x^4 + 29x^3 - 18$

DEG = 4

L.C. = 7

2. $y = 4x^2(3x - 7)^2(8 - 5x)^3(x - 12)$

$(4x^2)(9x^2)(-125x^3)(x)$ DEG = 8

$-4500x^8$

L.C. = -4500

State if the Leading Coefficient is Pos or Neg and if the Degree is Even or Odd.

3. $y = 6x(5x - 12)^2(2x - 9)(8 - x)^3$

DEG: ODD (7)

L.C.: NEG

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

DEG: ODD (9)

L.C.: POS

State the End-Behavior of each polynomial.

5. $y = 12x^3 - 9x + 3x^2 - 11x^4 + 20$

DEG = EVEN end behavior (↓, ↓)
L.C. = NEG

6. $y = -(8x - 7)^2(x + 4)^3(x - 1)(9 - x)$

DEG = ODD (7) end behavior (↓, ↑)
L.C. = POS

7. $y = 3x(10x - 7)^2(8x - 15)(x - 6)^2$

DEG = EVEN end behavior (↑, ↑)
L.C. = POS

8. Graph this function by filling out the table.

$y = (x - 1)^3$

x	y
-1	-8
0	-1
1	0
2	1
3	8

