Alg 2A Hwk #23 Degree and Leading Coefficient of Polynomials Spring 2017 Name:

1. $y = -8x^5 + 14x^3 - 7x^2 + 25$

Degree = Leading Coef =

2. $y = 43x^3 + 5x^2 - x^6 + 80x^4 - 75 + 103x$

Degree = Leading Coef =

3. $y = 6x^2 - 3x + x^3 - 5x^4 - 7x + x^4 - 8x^2$

Degree = Leading Coef =

Find the leading coefficient and degree of each polynomial in factored form:

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

Degree = Leading Coef =

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

Degree = Leading Coef =

6. $y = -10x^2(7 - 2x)^3(5x - 9)^2(x + 15)$

Degree = Leading Coef =

What will be most important in Chapter 6 is whether the degree is **Even or Odd** and if the leading coefficient is **Positive or Negative**

For each polynomial below tell if the degree is Even or Odd and if the Leading Coefficient is Pos or Neg

7. $y = -10x(4x + 7)(3x - 8)^3$

Degree : Leading Coef :

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

Degree : Leading Coef :

9. $y = -x^3(x + 8)(9x - 4)^2(1 - 2x)^3(10 - x)^2$

Degree : Leading Coef :

10. $y = 8x^4(6 - 7x)^2(x - 3)^3(4 - 3x)(9x - 11)^3$

Degree : Leading Coef :