

Name: \_\_\_\_\_ Hour: \_\_\_\_ Date: \_\_\_\_\_

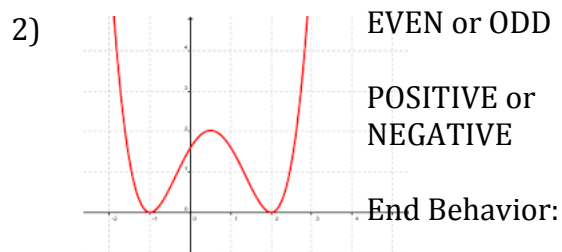
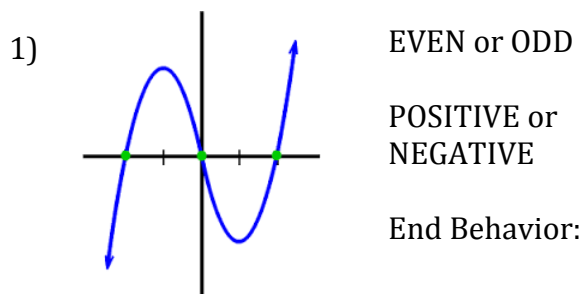
## HONORS Polynomials Quiz Review (Friday, February 16)

**Complete the following tables. Remember, you need to have this information memorized for Friday!**

Classifying by Degree (the “first name” of the polynomial)		
Degree	Name	Example
0		
1		
2		
3		
4		
5		

Classifying by Number of Terms (the “last name” of the polynomial)		
# of Terms	Name	Example
1		
2		
3		
4 or more		

**For the given graphs, decide whether the degree is EVEN or ODD, whether the leading coefficient is POSITIVE or NEGATIVE and describe the END BEHAVIOR.**



**Write the following polynomials in standard form and then classify them by degree/number of terms and describe their end behavior.**

3)  $5x - 2x^2 + 7x^4 - 4 + 2$

Standard Form:

Classification:

End Behavior:

4)  $x^2 + 3x - 4x^5 + 2x^5 + x$

Standard Form:

Classification:

End Behavior:

5)  $2 - 3x^3 - 2$

Standard Form:

Classification:

End Behavior:

6)  $(-a^2 - 3) - (3a - a^2 - 5)$

Standard Form:

Classification:

End Behavior:

**Find the product of the following polynomials (in standard form) and classify the polynomial by degree/number of terms and describe the end behavior.**

7)  $y^3(y^2 + 2y + 1)$

8)  $-x(x + 4)(x + 8)$

9)  $(c + 3)(c - 1)(3c + 6)$

10)  $(-2x + 3)(x - 4)^2$

**Give an example of a polynomial that satisfies the given constraints and describe its end behavior.**

11) Positive (+) Quintic Binomial

Example:

End Behavior:

12) Negative (-) Quadratic Trinomial

Example:

End Behavior:

13) Positive (+) Quartic Polynomial

Example:

End Behavior:

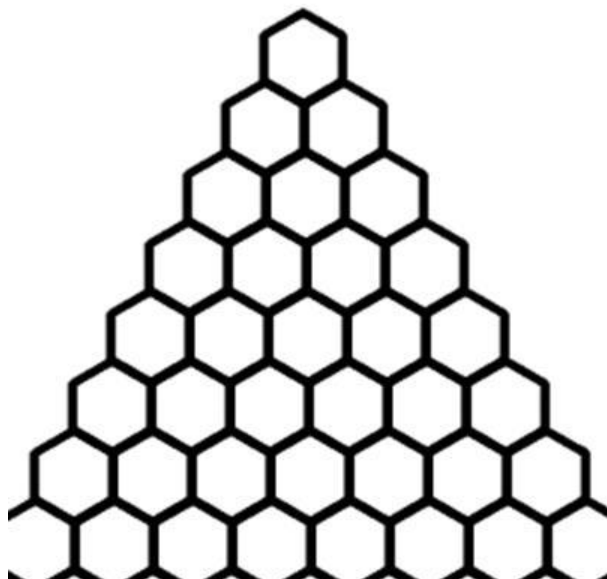
14) Negative (-) Linear Monomial

Example:

End Behavior:

**Calculator Portion:**

**Fill in the first 7 rows of Pascal's Triangle.**



**Use the binomial theorem to expand the following polynomials.**

1)  $(x + 3)^6$

2)  $(y - 2)^5$

3)  $(a + b)^7$

4)  $(2x - 3)^4$