Polynomial Intro Assignment

Name _____

Part 1 On page 372 of your textbook choose any 2 of the functions (from P_4 to P_8). For each graph do the following.

Requirements for EACH Function

a) Leading term
b) Lead. coeff
c) Degree
d) Make a large neat sketch.
e) Label x-intercepts
f) Label y-intercept
g) # turns
h) end behavior

Part 2 Do 8 - ..... 9, 11, 15 on the back of this same sheet that you did for part 1.

↓

Famous Old Dudes Part 3

Who said, "If people do not believe that mathematics is simple, it is only because they do not realize how complicated life is"?

The answers to each question are in the box below. Put the letter next to each in the spot or spots for the question number.

Find the degree of each monomial. If it is not a monomial, state "not a monomial".

1. $24a^5b^2$ 2. $3x^9y^7z$ 3. 324 4. $2x^{-3}y^8$

Find the degree of each polynomial. If it is not a polynomial, state "not a polynomial".

5. $3a^5b^2 - 7a^9b^3$ 6. $-4x^{18}z + 5x$ 7. $2x^{-1} + 2$ 8. $3x + 1$

Write each polynomial in standard form.

9. $y = 5x^2 + 12x^4 - 3x$ 10. $y = -9x^7y + 4x^7z^3 - 4$ 11. $y = 99x^7 - x^{11} + 21x^9$

Classify each polynomial.

12. $y = 8a^5b - 7a^2b^2$ 13. $y = -4x^3 + 5x^2 - 2x$ 14. $y = 2x + 2$

15. $y = x^2 + 4x - 5$ 16. $y = -9a^4 - 11ab + 12b$ 17. $y = 8x^4$

1903-1957
Mathematician/Computer Scientist - at 6 could divide 8 digit numbers in his head. Worked on the testing of nuclear weapons.

N: 0	**O:** 1	**I:** 7	**E:** 12	**M:** 17	**A:** 19

L: $y = 4x^7z^3 - 9x^7y - 4$
H: $y = -x^{11} + 21x^9 + 99x^7$
U: $y = 12x^4 + 5x^2 - 3x$
V: Quadratic (2nd degree) trinomial
N: 4th degree monomial
N: 6th degree binomial

O: Not a monomial
N: Not a polynomial
U: Linear (1st degree) binomial
S: Cubic (3rd degree) trinomial
J: 4th degree trinomial

16	8	11	3	10	4	9	1	13	15	8	7	17	5	14	2	6	12	17

Staple this sheet under your paper from Parts 1 and 2