TERM: A NUMBER, A NUMBER TIMES A VARIABLE(S) OR A VARIABLE(S) TIMES A VARIABLE(S)

ex: 7, $8x$, x^2, $2x^5y^3$

COEFFICIENT: NUMBER IN FRONT OF TERM

	COEFF
ex: $8x$	8
$2x^5y^3$	2
x^2	1
7	7

MONOMIAL = 1 TERM

BINOMIAL = 2 TERMS

TRINOMIAL = 3 TERMS

POLYNOMIAL = 1 OR MORE TERMS

DEGREE: LARGEST POWER OF x

ex: $3x^4-7x+2$

DEG = 4

ex: $x^5y^2 - 3xy^3 + 2$ (7, 4, 0)

DEG = 7

STANDARD FORM

TERMS ARE WRITTEN FROM LARGEST POWER DOWN TO SMALLEST

ex: $8x+3x^2-7$

$3x^2+8x-7$

POLYNOMIALS CANNOT HAVE

1. NEGATIVE EXPONENTS
2. FRACTIONAL EXPONENTS
3. VARIABLES IN DENOMINATOR

(1) $-5x^3$ — YES, -5, 3

(2) $8m^{57}$ — YES, 8, 57

(3) $\frac{2}{x^3}$ — NO

(4) x^{-2} — NO

(5) $\frac{1}{7}$ — YES, $\frac{1}{7}$, 0

(6) $7x-2$ — YES, $7x-2$, 1, BINOMIAL

(7) $\frac{5}{x}$ — NO

(8) $3x-5x^{\frac{1}{3}}$ — NO

(9) $3x^5+2x-7$ — YES, $3x^5+2x-7$, 5, TRINOMIAL

(10) $7x^{-2}+3x-7$ — NO

(11) $x^4-x+3x^2-4x^3+2$ — YES, $x^4-4x^3+3x^2-x+2$, 4, POLYNOMIAL

(12) $(3x^2+4)+(7x^2-5x-2)$

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

$10x^2-5x+2$

(13) $\left(\frac{5}{4}x^2-\frac{1}{2}x+2\right)+\left(\frac{1}{6}x^2+\frac{5}{3}x-7\right)$

$\frac{5}{4}x^2+\frac{1}{6}x^2-\frac{1}{2}x+\frac{5}{3}x+2-7$

$\frac{15}{12}x^2+\frac{2}{12}x^2-\frac{3}{6}x+\frac{10}{6}x-5$

$\frac{17}{12}x^2+\frac{7}{6}x-5$

(14) $(9x^2-2x-5)-(x^2-7x+3)$

$9x^2-2x-5-x^2+7x-3$

$8x^2+5x-8$

(15) $(n^2+3n-2)-(4n^2-n-1)+(-2n^2-5n-2)$

$n^2+3n-2-4n^2+n+1-2n^2-5n-2$

$-5n^2-n-3$