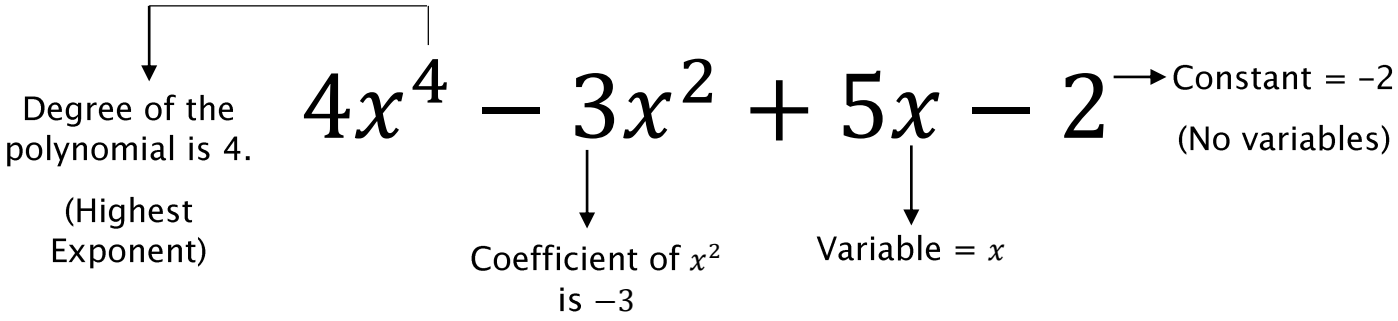
ALGEBRAIC EXPRESSIONS – TOPIC 8



Names of Expressions:

Monomial:	An expression containing 1 term	Eg: $xyz;\ x;\ 3z;\ 4(x-2)$
Binomial:	An expression containing 2 terms	Eg: $x-3;$
Trinomial:	An expression containing 3 terms	Eg: $a-2c+3m$

Examples:

1. Add $(3x^2 - x + 4)$ and $(2x^2 - 3x - 1)$ = _____

_____

_____

2. Subtract $(-4x^2 + 3)$ from $(6x^2 - 2)$ = _____

_____

_____

3. In the following expression: $-5x^3 + 3x^2 + x - 1$

   a. There are _____ terms.
   b. The constant term is _____.
   c. The degree of the expression is _____.
   d. The coefficient of the x^2 is _____.
   e. What is the value of the expression, if $x = -2$

_____

_____

Multiply and Divide Polynomials

Examples:

1. $3(2x - 4)$ = _____

2. $-2x(-2x^3 + 4x^2 - 2)$ = _____

3. $4(x-3)-2x(x-4)=$ _____

_____

4. $x^2(x^4-x+5)=$ _____

5. $3-4(x+2)=$ _____

_____

Topic 8: Exercise 1

1. $\frac{3x-2}{x}$ $x \neq 0$
2. $\frac{5x^2-x+3}{x}$ $x \neq 0$
3. $\frac{2x(x-3)}{6x}$ $x \neq 0$
4. $\frac{-2x^3+x^2-x+9}{-x}$ $x \neq 0$
5. $\left(\frac{3xy}{4x}\right)^2$ $x \neq 0$

Multiply Binomials

F – Firsts

O – Outers

I – Inners

L – Lasts

$$(x+3)(x-2)$$

= _____

= _____

Examples:

1. $(x-5)(x+3)=$ _____

_____

2. $(x+6)(x+2)=$ _____

_____

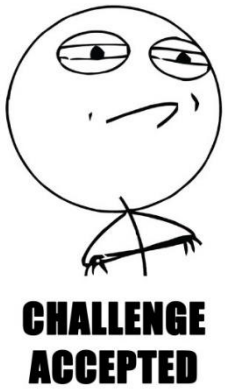
3. $(2x+4)(-3x-3)=$ _____

_____

4. $(x-2)^2=$ _____

$=$ _____

$=$ _____



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

$=$ _____

$=$ _____