March 20, 2017

* Degree of a Term
  - is the sum of all powers of the variables
  - $3x^2y^3z^1$
  - Degree: $2+3+1=6$
* Degree of a Polynomial
  - the degree of the largest term of the polynomial

$2x^2 + 5x^3y - 6x$

D: 2 | * D: 4 | D: 1

So, the polynomial degree is 4

** By convention, we write polynomials in descending order of powers

$5x^3y + 2x^2 - 6x$

Mar 20-9:01 AM

Degrees of Polynomials & Graphs

① x ; degree 1 ; line

② x^2 even ; degree 2 ; curve

③ x^3 odd ; degree 3 ; curve

④ x^4 ; degree 4 ; curve

⑤ x^5 ; degree 5 ; curve

Mar 20-9:19 AM

$p(x) = x^3 - 8x - 11$ (input → rule → output; name of the function)

$= x^3 + 0x^2 - 8x - 11$

$p(-1) = (-1)^3 - 8(-1) - 11$

$= -1 + 8 - 11$

$= 7 - 11$

$= -4$

$p(-2) = (-2)^3 - 8(-2) - 11$

$= -8 + 16 - 11$

$= 8 - 11$

$= -3$

$p(a) = (a)^3 - 8(a) - 11$

$= a^3 - 8a - 11$

unlike terms

Mar 20-9:26 AM

Do 5.2 #1 - #60 m 3

Mar 20-9:35 AM

5.4 Add & Subtract Polynomials

* We can only add Like terms!
  - ① same variable
  - ② same exponent

$5x^2 + 3x^2$ Like

$x^2(5+3)$ Dist

$x^2 8$

$8x^2$

Mar 20-9:35 AM

① $(5x^3 + 2x^2 - 6)$ + ② $(-3x^2 + 8)$

① Trinomial ② Binomial

* Clear parathesis

$5x^3 + 2x^2 - 6 - 3x^2 + 8$

$+(-6) + (-3x^2)$

* Collect like terms

$5x^3 + 2x^2 - 3x^2 - 6 + 8$

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

D: 3

Mar 20-9:41 AM