October 17, 2016

* Quiz #6 - Wednesday
3.1 — 5.1

Oct 17-9:06 AM

$f(x) = -2x^2 + 3x + 2$ Rule

$f(3) = -2(3)^2 + 3(3) + 2$ (3: Input)

$= -2(9) + 9 + 2$

$= -18 + 9 + 2$

$= -9 + 2$

$= -7$

$f : x \to -2x^2 + 3x + 2$

$f : 3 \to -7$

if $f(x) = y$, then

$y = -7$

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$f(x) = |9x - 6|$

$f(4) = |9(4) - 6|$

$= |36 - 6|$

$= |30|$

$= 30$

$f : 4 \to 30$

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5.2 Polynomials

↓

Operations w/ Polynomials

↳ Multiplication of Polynomial

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Polynomials

* Term: is a number or the product of a number and one or more variables.

-9, $-9x$, $2x^2y^3$ (2: Coefficient, 3: Constant)

* Degree of a Term: is the sum of the exponents

$2x^2y^3 \to 2+3=5$

Degree: 5

$-9x^1$ ↳ Degree: 1

$-9x^0$ ↳ Degree: 0

FACT $x^0 = 1$

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* Monomial: one term Polynomial ("one")

$5, -123y^{18}, x^2$

* Binomial: two term Polynomial where terms are Connected by addition/subtraction ("two")

$3x + 4y, 4x^2 - 2x, x - 2, y - 8$

* Trinomial: a three term Polynomial Connected by "+" or "−" ("three")

$-2x^2 + 3x + 2, x + y + 2$

* Polynomial: a many termed Polynomial ("many")

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

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* Degree of a Polynomial: is the degree of the largest term in the Polynomial.

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

D: 3 → therefore, the Polynomial degree is 3

$10x^{12} - 2x^{10}y^3$ D: 13

D: 13

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x^1, x^2 } easy to solve

x^3 ?

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