

2-3 Polynomials and Function Notation

Objective: Students will be able to add, subtract and multiply polynomial expressions using function notation.

Write in your own words the definition or provide an example of the following terms.

- 20) Term - x^2 or x or y or 3
- 21) Polynomial - One or more terms $x^2 + 9x + 2$
- 22) Monomial - 1 term
- 23) Binomial - 2 terms
- 24) Trinomial - 3 terms
- 25) Degree - exponent on the variable

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Simplify

1. $3x^2 + 8 - 2x^2 - x + 6$
 $x^2 - x + 14$

~~$-4 + 6$~~
 2. $(2x-4)-(x^2+4x-6)$
 $-x^2 - 2x + 2$

3. $(2x-4)(3x+8)$
 $6x^2 + 16x - 12x - 32$
 $6x^2 + 4x - 32$

4. $(5x+3)(5x+3)$
 $25x^2 + 15x + 15x + 9$
 $25x^2 + 30x + 9$

Find the following given

$f(x) = -2x - 9$ $g(x) = x^2 + 3x - 2$

$(f+g)(x)$ $x^2 + x - 11$

$(f-g)(x)$ $-x^2 - 5x - 7$

$(f \cdot g)(x)$ $(-2x-9)(x^2+3x-2)$
 $-2x^3 - 6x^2 + 4x - 9x^2 - 27x + 18$
 $-2x^3 - 15x^2 - 23x + 18$

Nov 14-9:22 AM

Jun 2-3:44 PM

You Try!

$f(x) = (5x+3)$ $g(x) = (4x-2)$

$(f+g)(x)$

$(f-g)(x)$

$(f \cdot g)(x)$

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Sep 19-8:55 AM