

MasterMath

Add, Subtract and Multiply Polynomials

Name _____

Date _____

1. Referring to this expression, and using parts or all of this expression, fill in the blanks on this table with examples, or answer the question.

$6x^3 - 3x^2 + 8x + 12 + 3x$	polynomial	$6x^3 - 3x^2 + 8x + 12$
	monomial	$6x^3$ or $3x^2$ or $8x$ or 12
	degree of expression?	3
	leading coefficient?	6
	binomial	$6x^3 - 3x^2$ or any 2 monomials in the polynomial
	trinomial	$6x^3 - 3x^2 + 8x$ or $-3x^2 + 8x + 12$
	like terms	$8x$ and $3x$

2. FOIL stand for:

F	first
O	outside
I	inside
L	last

Find the sum, difference or product:

3. $(3z^2 + 8z - 6) - (z^2 - 2z - 10) =$

$2z^2 + 10z + 4$

4. $(12a^3 - 4a + 8) + (9a^3 + 2a^2 + 5a + 1)$

$21a^3 + 2a^2 + a + 9$

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

$2x^2 - x + 8$

6. $3c(2a + 8)$

$6ac + 24c$

7. $7x^2(2x^2 + 3x - 4)$

$14x^4 + 21x^3 - 28x^2$

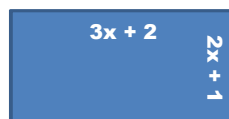
8. $(x + 3)(x - 3)$

$x^2 - 9$

9. $(z + 3)(2z - 5)$

$2z^2 + z - 15$

10. Find the area of this figure:

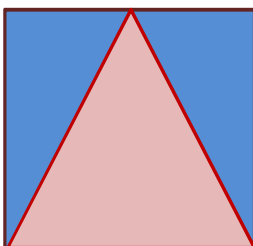


$6x^2 + 7x + 2$

11. Simplify: $3x(2x^2 + 5x - 6) - (4x^3 + 4x^2 - x - 6)$

$2x^3 + 11x^2 - 17x + 6$

12. The length of the sides of the square are $(2x + 2)$. What is the area of the shape that is blue?



$2x^2 + 4x + 2$