

L4 Addition and subtraction of Polynomials

Adding Polynomials: group like terms

Ex 1: $2x^2 - 3x - 3$
 $+ -2x^2 + 2x + 6$
=

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Ex 2: Simplify

$3x^2 + (5x + 10x) =$

$(8xy^2 + 9x^2y) + 5xy^2 =$

$(6a + 12b) + (7a + 5b) =$

$(7y + 6) + (8y^2 + 10) =$

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Subtracting polynomials: subtract each like term. (It is like adding the opposite of each term)

Ex 3: $2a^2 + 5a + 8$
 $- a^2 - 4a + 5$
=

Same as: $2a^2 + 5a + 8$
 $+ - a^2 + 4a - 5$
=

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Ex 4: Simplify by subtracting the polynomials

$7x + (5x + 10x) =$

$8x^2 + 4x + (6x^2 + 2x) =$

$4a + 7b + (12a - 5b) =$

$7c + 6c^2 + (8c^2 - 10) =$

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Ex 5: Sam works at a Telephone Company he gets \$16/h but pays \$35 per paycheque for insurance. Pam works in a restaurant; she gets \$10/h and \$120 tips per pay period.

- a) Write an algebraic expression for each of them.
- b) Find the total of their incomes.

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$S(h) = 16h - 35$ $P(h) = 10h + 120$
 $T(h) = 26h + 85$

c) Find the difference between their incomes

d) If in one pay period they work 30 hours each, what is their total pay?

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Ex 6: A mother is 5 times as old as her daughter.

a) If the girl is x years old, how old is the mother?

b) How old will each be in 13 years?

	Mother	Girl
Now		
In 13 years		

c) What will their total age be in 13 years?

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Ex 7: Mix bag Polynomials review

- 1) Simplify: $3x^2 + 10x^2 - 6x + 4x$
- 2) True or false:
 - a) A monomial can have a negative exponent.
 - b) Like terms are monomials with the same variables raised to the same exponents.
 - c) A polynomial has at least two UNLIKE TERMS.
- 3) Simplify: $3a + 5b - (7a + 9b)$
- 4) Is $4x^2 - 7x + 10$ a trinomial?
- 5) Simplify: $3x + 7y - (2x - 6y)$
- 6) Circle the monomials
 $\sqrt{5}a$ $7a^5b^7$ y^{-10} 6 $12x^4$

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Practice:
2.5 # 1-5



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