

10-31-18

Aim: SWBAT continue to add and subtract polynomials.

HW: Packet Page 11

Quiz Friday (Packet Pages 1 - 11)

Do Now: Packet Page 8

## HOMEWORK - FINDING THE SUM or DIFFERENCE

Find each sum OR difference.

1)  $(2a - 6) + (3a + 8)$

$$2a - 6 + 3a + 8$$

$$5a + 2$$

3)  $(2x + 4y - 1) + (-x - 7 - 6y)$

$$2x + 4y - 1 - x - 7 - 6y$$

$$x - 2y - 8$$

5)  $(2k + 3kn) + (-6kn + 4k)$

$$2k + 3kn - 6kn + 4k$$

$$6k - 3kn$$

7)  $(3x + 2) - (5x - 1)$

$$3x + 2 - 5x + 1$$

$$-2x + 3$$

9)  $(3c + 7d - 5) - (6d + 4 - 2c)$

$$3c + 7d - 5 - 6d - 4 + 2c$$

$$5c + d - 9$$

11)  $(7ax + 13by + 5) - (-3ax + 4)$

$$7ax + 13by + 5 + 3ax - 4$$

$$10ax + 13by + 1$$

2)  $(9m + 7n) + (-4m + 3n)$

$$9m + 7n - 4m + 3n$$

$$5m + 10n$$

4)  $(3p + 2r) + (12r - 2p + 7)$

$$3p + 2r + 12r - 2p + 7$$

$$p + 14r + 7$$

6)  $(7u^2 - 10r) + (-3u^2 + 8 - 2r)$

$$7u^2 - 10r - 3u^2 + 8 - 2r$$

$$4u^2 - 12r + 8$$

8)  $(4r + 2u) - (-7r - 87)$

$$4r + 2u + 7r + 87$$

$$11r + 2u + 87$$

10)  $(7x - 3y + 9) - (4y - 8)$

$$7x - 3y + 9 - 4y + 8$$

$$7x - 7y + 17$$

12)  $(2a^3 + 7a^2b + b^3) - (a^3 + 7b^3)$

$$2a^3 + 7a^2b + b^3 - a^3 - 7b^3$$

$$a^3 + 7a^2b - 6b^3$$

## DO NOW - Polynomial Review

Classify the following polynomial.

1)  $2x^2 - 9x + 24$  \_\_\_\_\_

Write the polynomial in STANDARD FORM and state the degree.

2)  $7x^5 + x^7 - 4x^2$  \_\_\_\_\_

Simplify each polynomial.

3)  $9x^2 + 7x - 3 + 7x^2 - 9x + 2$

4)  $-2y(2y - 5y^2 + 3) + 6y^2 - 9y + 7$

State the coefficient of the following monomials and the degree.

5)  $-8x^2y^3$  \_\_\_\_\_

6)  $12m^2n^4$  \_\_\_\_\_

7) 24 \_\_\_\_\_

ADD the polynomial.

8)  $(7y^2 + 5y - 8) + (8y^2 - y + 5)$

SUBTRACT the polynomial.

9)  $(9x^2 - 5x + 25) - (4x^2 + 8x + 15)$

## DO NOW - Polynomial Review

Classify the following polynomial.

1)  $2x^2 - 9x + 24$  trinomial

Write the polynomial in STANDARD FORM and state the degree.

2)  $7x^5 + x^7 - 4x^2$   $x^7 + 7x^5 - 4x^2$   
degree = 7

Simplify each polynomial.

3)  $9x^2 + 7x - 3 + 7x^2 - 9x + 2$   
 $9x^2 + 7x - 3 + 7x^2 - 9x + 2$   
 $9x^2 + 7x^2 + 7x - 9x - 3 + 2$   
 $16x^2 - 2x - 1$

4)  $-2y(2y - 5y^2 + 3) + 6y^2 - 9y + 7$   
 $-4y^2 + 10y^3 - 6y + 6y^2 - 9y + 7$   
 $10y^3 - 4y^2 + 6y^2 - 6y - 9y + 7$   
 $10y^3 + 2y^2 - 15y + 7$

State the coefficient of the following monomials and the degree.

5)  $-8x^2y^3$  -8 5

6)  $12m^2n^4$  12 6

7) 24 none 0

ADD the polynomial.

8)  $(7y^2 + 5y - 8) + (8y^2 - y + 5)$   
 $7y^2 + 5y - 8 + 8y^2 - y + 5$   
 $15y^2 + 4y - 3$

SUBTRACT the polynomial.

9)  $(9x^2 - 5x + 25) - (4x^2 + 8x + 15)$   
 $9x^2 - 5x + 25 - 4x^2 - 8x - 15$   
 $5x^2 - 13x + 10$

**AIM: SWBAT add or subtract polynomials.**

**Add or subtract the following polynomials.**

1)  $(-2x^2 + 4x - 12) + (5x^2 - 5x)$

2)  $(3y^2 - 9y) - (-5y^2 + 7y - 7)$

3)  $(3x^2 - 2x + 1) - (4x^3 - 5x - 8)$

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

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

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

7)  $(4x^2 + 2x - 3) - (2x^2 - 5x - 3)$

8)  $(x^2 + 5x - 24) + (-x^2 - 4x + 9)$

9)  $(x^3 + 9x - 5) - (-4x^2 - 12x - 5)$

10)  $-d^2 + [9d + (2 - 4d^2)]$

$$\begin{aligned}
 & -d^2 + [9d + 2 - 4d^2] \\
 & \boxed{-d^2} + 9d + 2 \boxed{-4d^2} \\
 & -5d^2 + 9d + 2
 \end{aligned}$$

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AIM: SWBAT add or subtract polynomials.

Add or subtract the following polynomials.

$$1) (-2x^2 + 4x - 12) + (5x^2 - 5x)$$

$$-2x^2 + 4x - 12 + 5x^2 - 5x$$

$$3x^2 - x - 12$$

$$2) (3y^2 - 9y) - (-5y^2 + 7y - 7)$$

$$3y^2 - 9y + 5y^2 - 7y + 7$$

$$8y^2 - 16y + 7$$

$$3) (3x^2 - 2x + 1) - (4x^3 - 5x - 8)$$

$$3x^2 - 2x + 1 - 4x^3 + 5x + 8$$

$$-4x^3 + 3x^2 + 3x + 9$$

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

$$6x^3 - 2x^2 - 12 + 6x^2 + 3x + 8$$

$$6x^3 + 4x^2 + 3x - 4$$

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

$$x^2 - x - 4 - 3x^2 + 4x - 5$$

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

$$6) (x^3 - x^2 + 3) - (3x^2 - 4x + 5)$$

$$x^3 - x^2 + 3 - 3x^2 + 4x - 5$$

$$x^3 - 4x^2 + 4x - 2$$

$$7) (4x^2 + 2x - 3) - (2x^2 - 5x - 3)$$

$$4x^2 + 2x - 3 - 2x^2 + 5x + 3$$

$$2x^2 + 7x$$

$$8) (x^2 + 5x - 24) + (-x^2 - 4x + 9)$$

$$x^2 + 5x - 24 - x^2 - 4x + 9$$

$$x - 15$$

$$9) (x^3 + 9x - 5) - (-4x^2 - 12x - 5)$$

$$x^3 + 9x - 5 + 4x^2 + 12x + 5$$

$$x^3 + 4x^2 + 21x$$

$$10) -d^2 + [9d + (2 - 4d^2)]$$

$$-d^2 + 9d + 2 - 4d^2$$

$$-5d^2 + 9d + 2$$

$$11) (4x^2 + 6x + 3) + (3x^2 - 3x - 2) + (-4x^2 + 3x - 9)$$

$$12) (7x^2 + 2x + 7) - (4x^2 - 2x + 3) + (-5x^2 + 6x + 7)$$

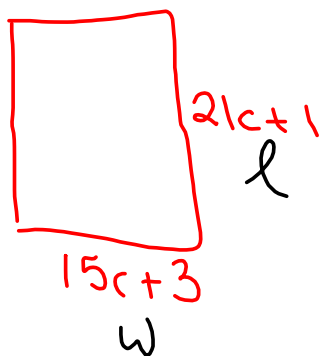
$$13) (3x^3 - 5x^2 - 9) - (5x^3 - 5x - 4) - (5x^3 - 4x^2 - 9)$$

$$\boxed{3x^3} - \boxed{5x^2} - 9 - \boxed{5x^3} + \boxed{5x} + 4 - \boxed{5x^3} + \boxed{4x^2} + 9$$

$$-7x^3 - x^2 + 5x + 4$$

$$14) (2x^2 - 9x + 8) - (2x^3 - 4x^2 - 8x - 2) + (-5x^3 - 6x - 10)$$

- 15) Camilla is putting ribbon around the edge of her scrapbook. The dimensions of the rectangular page can be represented by  $15c + 3$  inches wide by  $21c + 1$  inches long. How much ribbon will Camilla need to go once around the perimeter of her scrapbook? (Draw a diagram)



$$P = 2l + 2w$$

$$P = 2(21c + 1) + 2(15c + 3)$$

$$P = 42c + 2 + 30c + 6$$

$$P = 72c + 8 \text{ inches}$$

$$11) (4x^2 + 6x + 3) + (3x^2 - 3x - 2) + (-4x^2 + 3x - 9)$$

$$4x^2 + 6x + 3 + 3x^2 - 3x - 2 - 4x^2 + 3x - 9$$

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

$$12) (7x^2 + 2x + 7) - (4x^2 - 2x + 3) + (-5x^2 + 6x + 7)$$

$$7x^2 + 2x + 7 - 4x^2 + 2x - 3 - 5x^2 + 6x + 7$$

$$-2x^2 + 10x + 11$$

$$13) (3x^3 - 5x^2 - 9) - (5x^3 - 5x - 4) - (5x^3 - 4x^2 - 9)$$

$$3x^3 - 5x^2 - 9 - 5x^3 + 5x + 4 - 5x^3 + 4x^2 + 9$$

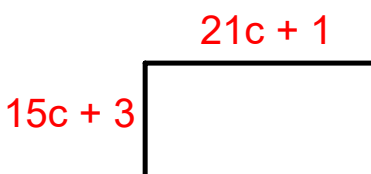
$$-7x^3 - x^2 + 5x + 4$$

$$14) (2x^2 - 9x + 8) - (2x^3 - 4x^2 - 8x - 2) + (-5x^3 - 6x - 10)$$

$$2x^2 - 9x + 8 - 2x^3 + 4x^2 + 8x + 2 - 5x^3 - 6x - 10$$

$$-7x^3 + 6x^2 - 7x$$

- 15) Camilla is putting ribbon around the edge of her scrapbook. The dimensions of the rectangular page can be represented by  $15c + 3$  inches wide by  $21c + 1$  inches long. How much ribbon will Camilla need to go once around the perimeter of her scrapbook? (Draw a diagram)



$$15c + 3 + 15c + 3 + 21c + 1 + 21c + 1$$

$$72c + 8$$

Camilla needs  $72c + 8$  inches of ribbon



## HOMEWORK - ADD or SUBTRACT POLYNOMIALS

Add or subtract the following polynomials.

1)  $(x^2 + 3x + 2) + (3x^2 + 4x - 9)$

2)  $(6m^2 + 2m - 3) - (7m^2 + 4)$

3)  $(5ab + 2ac - 6bc) + (-4ac + 2bc)$

4)  $(6x^2 - 3x + 1) + (3x^3 + 4x^2 - 5x)$

5)  $(2a^2 + 4a - 1) - (a - 6a^2 + 2)$

6)  $(6r^2x + 5rx^2) - (9rx^2 - 9r^2x)$

7)  $(5n^2 + 2n - 9) + (3n^2 - 4)$

8)  $(3p^2 - p - 1) + (p^2 + p - 4)$

9)  $(x + 15y - 9z) - (7x - 8y + z)$

10)  $(4r^2 - r + 8) - (r^2 + 6r - 1)$

11)  $(4x^3 + 5x^2 - 2x - 5) - (3x^3 - 4x + 2)$

12)  $(2mn + 3a + 7d) + (-5mn + 7a)$

## HOMEWORK - ADD or SUBTRACT POLYNOMIALS

Add or subtract the following polynomials.

1)  $(x^2 + 3x + 2) + (3x^2 + 4x - 9)$

$$x^2 + 3x + 2 + 3x^2 + 4x - 9$$

$$4x^2 + 7x - 7$$

3)  $(5ab + 2ac - 6bc) + (-4ac + 2bc)$

$$5ab + 2ac - 6bc - 4ac + 2bc$$

$$5ab - 2ac - 4bc$$

5)  $(2a^2 + 4a - 1) - (a - 6a^2 + 2)$

$$2a^2 + 4a - 1 - a + 6a^2 - 2$$

$$8a^2 + 3a - 3$$

7)  $(5n^2 + 2n - 9) + (3n^2 - 4)$

$$5n^2 + 2n - 9 + 3n^2 - 4$$

$$8n^2 + 2n - 13$$

9)  $(x + 15y - 9z) - (7x - 8y + z)$

$$x + 15y - 9z - 7x + 8y - z$$

$$-6x + 23y - 10z$$

11)  $(4x^3 + 5x^2 - 2x - 5) - (3x^3 - 4x + 2)$

$$4x^3 + 5x^2 - 2x - 5 - 3x^3 + 4x - 2$$

$$x^3 + 5x^2 + 2x - 7$$

2)  $(6m^2 + 2m - 3) - (7m^2 + 4)$

$$6m^2 + 2m - 3 - 7m^2 - 4$$

$$-m^2 + 2m - 7$$

4)  $(6x^2 - 3x + 1) + (3x^3 + 4x^2 - 5x)$

$$6x^2 - 3x + 1 + 3x^3 + 4x^2 - 5x$$

$$3x^3 + 10x^2 - 8x + 1$$

6)  $(6r^2x + 5rx^2) - (9rx^2 - 9r^2x)$

$$6r^2x + 5rx^2 - 9rx^2 + 9r^2x$$

$$15r^2x - 4rx^2$$

8)  $(3p^2 - p - 1) + (p^2 + p - 4)$

$$3p^2 - p - 1 + p^2 + p - 4$$

$$4p^2 - 5$$

10)  $(4r^2 - r + 8) - (r^2 + 6r - 1)$

$$4r^2 - r + 8 - r^2 - 6r + 1$$

$$3r^2 - 7r + 9$$

12)  $(2mn + 3a + 7d) + (-5mn + 7a)$

$$2mn + 3a + 7d - 5mn + 7a$$

$$10a + 7d - 3mn$$