

11-20-17

Aim: SWBAT continue to add and subtract polynomials.

HW: Packet Page 11

Quiz Tomorrow

Do Now: Packet Page 8

HOMEWORK - FINDING THE SUM or DIFFERENCE

Find each sum OR difference.

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

$$\begin{array}{r} 2a - 6 + 3a + 8 \\ \hline 2a + 3a - 6 + 8 \\ \hline 5a + 2 \end{array}$$

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

$$\begin{array}{r} 2x + 4y - 1 - x - 7 - 6y \\ \hline 2x - x + 4y - 6y - 1 - 7 \\ \hline x - 2y - 8 \end{array}$$

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

$$\begin{array}{r} 2k + 3kn - 6kn + 4k \\ \hline 2k + 4k + 3kn - 6kn \\ \hline 6k - 3kn \end{array}$$

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

$$\begin{array}{r} 3x + 2 - 5x + 1 \\ \hline 3x - 5x + 2 + 1 \\ \hline -2x + 3 \end{array}$$

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

$$\begin{array}{r} 3c + 7d - 5 - 6d - 4 + 2c \\ \hline 3c + 2c + 7d - 6d - 5 - 4 \\ \hline 5c + d - 9 \end{array}$$

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

$$\begin{array}{r} 7ax + 13by + 5 + 3ax - 4 \\ \hline 7ax + 3ax + 13by + 5 - 4 \\ \hline 10ax + 13by + 1 \end{array}$$

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

$$\begin{array}{r} 9m + 7n - 4m + 3n \\ \hline 9m - 4m + 7n + 3n \\ \hline 5m + 10n \end{array}$$

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

$$\begin{array}{r} 3p + 2r + 12r - 2p + 7 \\ \hline 3p - 2p + 2r + 12r + 7 \\ \hline p + 14r + 7 \end{array}$$

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

$$\begin{array}{r} 7u^2 - 10r - 3u^2 + 8 - 2r \\ \hline 7u^2 - 3u^2 - 10r - 2r + 8 \\ \hline 4u^2 - 12r + 8 \end{array}$$

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

$$\begin{array}{r} 4r + 2u + 7r + 87 \\ \hline 4r + 7r + 2u + 87 \\ \hline 11r + 2u + 87 \end{array}$$

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

$$\begin{array}{r} 7x - 3y + 9 - 4y + 8 \\ \hline 7x - 3y - 4y + 9 + 8 \\ \hline 7x - 7y + 17 \end{array}$$

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

$$\begin{array}{r} 2a^3 + 7a^2b + b^3 - a^3 - 7b^3 \\ \hline 2a^3 - a^3 + 7a^2b + b^3 - 7b^3 \\ \hline a^3 + 7a^2b - 6b^3 \end{array}$$

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

Simplify each polynomial.

3) $9x^2 + 7x - 3 + 7x^2 - 9x + 2$
 $\boxed{9x^2 + 7x^2 + 7x - 9x - 3 + 2}$
 $16x^2 - 2x - 1$

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

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) $(7y^2 + 5y - 8) + (8y^2 - y + 5)$
 $7y^2 + 5y - 8 + 8y^2 - y + 5$
 $\boxed{7y^2 + 8y^2 + 5y - y - 8 + 5}$
 $15y^2 + 4y - 3$

SUBTRACT the polynomial.

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

AIM: SWBAT add or subtract polynomials.

Add or subtract the following polynomials.

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

$$\begin{array}{r} -2x^2 + 4x - 12 + 5x^2 - 5x \\ \hline -2x^2 + 5x^2 + 4x - 5x - 12 \\ \hline 3x^2 - x - 12 \end{array}$$

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

$$\begin{array}{r} 3y^2 - 9y + 5y^2 - 7y + 7 \\ \hline 3y^2 + 5y^2 - 9y - 7y + 7 \\ \hline 8y^2 - 16y + 7 \end{array}$$

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

$$\begin{array}{r} 3x^2 - 2x + 1 - 4x^3 + 5x + 8 \\ \hline -4x^3 + 3x^2 - 2x + 5x + 1 + 8 \\ \hline -4x^3 + 3x^2 + 3x + 9 \end{array}$$

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

$$\begin{array}{r} 6x^3 - 2x^2 - 12 + 6x^2 + 3x + 8 \\ \hline 6x^3 - 2x^2 + 6x^2 + 3x - 12 + 8 \\ \hline 6x^3 + 4x^2 + 3x - 4 \end{array}$$

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

$$\begin{array}{r} x^2 - x - 4 - 3x^2 + 4x - 5 \\ \hline x^2 - 3x^2 - x + 4x - 4 - 5 \\ \hline -2x^2 + 3x - 9 \end{array}$$

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

$$\begin{array}{r} x^3 - x^2 + 3 - 3x^2 + 4x - 5 \\ \hline x^3 - x^2 - 3x^2 + 4x + 3 - 5 \\ \hline x^3 - 4x^2 + 4x - 2 \end{array}$$

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

$$\begin{array}{r} 4x^2 + 2x - 3 - 2x^2 + 5x + 3 \\ \hline 4x^2 - 2x^2 + 2x + 5x - 3 + 3 \\ \hline 2x^2 + 7x \end{array}$$

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

$$\begin{array}{r} x^2 + 5x - 24 - x^2 - 4x + 9 \\ \hline x^2 - x^2 + 5x - 4x - 24 + 9 \\ \hline x - 15 \end{array}$$

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

$$\begin{array}{r} x^3 + 9x - 5 + 4x^2 + 12x + 5 \\ \hline x^3 + 4x^2 + 9x + 12x - 5 + 5 \\ \hline x^3 + 4x^2 + 21x \end{array}$$

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

$$\begin{array}{r} -d^2 + 9d + 2 - 4d^2 \\ \hline -d^2 - 4d^2 + 9d + 2 \\ \hline -5d^2 + 9d + 2 \end{array}$$

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

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

$$\boxed{4x^2 + 3x^2 - 4x^2 + 6x - 3x + 3x + 3 - 2 - 9}$$

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

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

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

$$\boxed{7x^2 - 4x^2 - 5x^2 + 2x + 2x + 6x + 7 - 3 + 7}$$

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

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

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

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

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

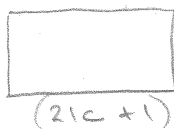
14) $(2x^2 - 9x + 8) - (2x^3 - 4x^2 - 8x - 2) + (-5x^3 - 6x - 10)$

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

$$\boxed{-2x^3 - 5x^3 + 2x^2 + 4x^2 - 9x + 8x - 6x + 8 + 2 - 10}$$

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

- 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)



$$P = 2l + 2w$$

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

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

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

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