Unit 10 Objective 2 Remediation

Adding Polynomials

Adding polynomials is **combining like terms**. Like terms are terms that have the **same variable part and same exponent.**

Example One

Simplify $(4x - 8y + 1) + (-x + 5y - 9)$

Because we are adding polynomials, we can drop the parentheses and combine the like terms

$$(4x + -x) + (-8y + 5y) + (1 + -9)$$

Answer: $3x - 3y - 8$

Example Two

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

Because we are adding polynomials, we can drop the parentheses and combine the like terms

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

Answer: $x^2 + 8x - 7$

Example Three

Simplify $(6a^2 - ab - 2b^2) + (a^2 + 3ab + 2b^2)$

Because we are adding polynomials, we can drop the parentheses and combine the like terms

$$(6a^2 + a^2) + (-ab + 3ab) + (-2b^2 + 2b^2)$$

Answer: $7a^2 + 2ab$

Why Did the Grizzly Go On a Diet?

Add the polynomials. Circle the letter pair next to the correct answer. Write the upper case letter in the box containing the lower case letter.

1 $7n + 4$
$+ 8n - 1$

2 $10n^2 - 9$
$+ 3n^2 - 8$

3 $15n^2 - 4n$
$+ (-2n^2 + n)$

4 $5n^2 + 2n + 3$
$+ n^2 + 4n - 6$

5 $3n^2 - 8n - 1$
$+ 9n^2 - n + 7$

6 $-4n^2 + 9n + 5$
$+ (-4n^2 - 9n + 5)$

a • H $13n^2 - 3n$
p • N $6n^2 + 5n - 9$
e • A $-8n^2 + 10$
o • E $15n + 3$
l • G $6n^2 + 6n - 3$
b • T $12n^2 - 7n + 8$
h • A $13n^2 - 17$
f • R $-8n^2 - 3$
t • E $12n^2 - 9n + 6$
v • L $13n^2 - 17n$

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7 $(5a^2 - 2) + (12a^2 + 5)$

8 $(-3a^2 - a + 8) + (7a^2 + 7a - 1)$

9 $(2a^2 - 11a - 4) + (-9a^2 - 2a - 15)$

10 $(8a + a^2 + 6) + (4 + a - 3a^2)$

11 $(3a^3 + 2a - 3) + (8a^3 - 5a - 10)$

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

s • T $11a^3 - 6a^2 + 7$
f • D $-2a^2 + 9a + 10$
n • S $4a^2 - 13a + 10$
v • L $-3a^3 - 6a^2 - a$
p • A $-7a^2 - 13a - 19$
w • Y $17a^2 + 3$
j • B $11a^3 - 3a - 13$
q • N $-7a^2 - 9a + 10$
b • E $4a^2 + 6a + 7$

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13 $(2x^4 + 5x^2 - 13) + (-7x^4 - 8x^2 + 1)$

14 $(-5x^4 + 2x^3 - 8x^2 - x) + (x^3 + 8x^2 - 3x - 1)$

15 $(7x^4 - 4x^2 + 12) + (-8x^4 + 3x^3 + 4x^2 + x)$

16 $(3x^2 - 2xy + 9y^2) + (x^2 - 5xy - 6y^2)$

17 $(-12x^2 + xy + 2y^2) + (-4x^2 + 9xy - 2y^2)$

18 $(8x^2y + 3xy^2) + (6x^2y - 11xy^2)$

u • L $-16x^2 + 10xy$
q • R $-5x^4 - 3x^2 - 12$
m • G $4x^2 + 10xy - 3y^2$
s • B $-x^4 + 3x^3 + x + 12$
r • S $-5x^4 - 3x^3 - 4x$
n • B $14x^2y - 8xy^2$
k • I $4x^2 - 7xy + 3y^2$
d • H $-5x^4 + 3x^3 - 4x - 1$
i • T $-x^4 + 2x^3 - 4x - 4$

a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w

How Does an Illiterate Oil-Rich Sheik Sign His Name?

For each exercise below, add the polynomials. Find your answer at the bottom of the page and write the letter of that exercise above it.

(E) $6x + 9$
$\underline{x - 1}$

(S) $3x - 4$
$\underline{5x - 7}$

(I) $8x^2 + 2x + 1$
$\underline{x^2 - 4x + 7}$

(H) $-5x^2 - 5x + 3$
$\underline{6x^2 - x}$

(U) $(7x^2 + 3x + 9) + (2x^2 + 5x - 2)$

(O) $(-3x^2 + x - 7) + (8x^2 - 4x - 4)$

(S) $(6x^3 + 2x^2 - 3x) + (3x^3 - 10x^2 - x)$

(E) $(-4x^3 + 6x + 1) + (5x^2 - x - 12)$

(H) $(9x^3 - x^2 + 8) + (-9x^3 + 2x^2 + 3x)$

(T) $(2x^4 + 5x^2 - 11) + (-6x^4 - 7x^2 + 1)$

(X) $(-4x^4 + 3x^3 - 7x^2 - x) + (-9x^3 + 7x^2 - 5x - 1)$

(P) $(4x^2 + 3xy - y^2) + (x^2 - 8xy - 2y^2)$

(N) $(2x^2y - xy^2) + (6x^2y + 7xy^2)$

(X) $(x^3y + 3x^2y^2 + 2xy^3) + (2x^3y - 9x^2y^2 - xy^3)$