Unit 4 Objective 4 Remediation

Adding and Subtracting Expressions

No calculators allowed!

Adding and Subtracting Expressions:

To add two expressions..

1. Remove all parentheses

2. Use the Commutative and Associative properties to rearrange and group like terms.

3. Simplify by combining like terms

Example

$$(4y - 5) + (-3y + 2)$$

$$4y - 5 - 3y + 2$$

$$(4y - 3y) + (-5 + 2)$$

$$y + (-3)$$

To subtract two expressions..

1. Change the subtracted expression to its opposite by changing the sign of each term in the expression

2. Use the Commutative and Associative properties to rearrange and group like terms.

3. Simplify by combining like terms

Example

$$(a + 9) - (-3a - 7)$$

$$a + 9 + 3a + 7$$

$$(a + 3a) + (9 + 7)$$

$$4a + 16$$

Simplify the following expressions:

1. $(x + 6) + (3x + 3)$

2. $(2m + 4) + (5m - 6)$

3. $(12 - 7y) + (4y + 10)$

4. $(2a + 6b) + (-6a - b)$

5. $(-8x - 13) + (2x - 9)$

6. $(4n + 5) + (3n + 6m)$

7. $(7x - 15) + (23 - 4x)$

8. $(3m + 17) + (-m - 19)$

9. $(4p + 6q - 11r) + (-8p + 6q - 3r)$

10. $(3x - 3y) + (12x - 2y) + (11x - y)$

Simplify the following expressions:

11. $4p - 9p$

12. $(8y - 17) - 9y$

13. $8x - (4 + 11x)$

14. $(m + 3n) - (5m + 7n)$

15. $(13x - 9y) - (4x + 10y)$

16. $(2a + 6b) - (14a - 11b)$

17. $-(3p - 2n - t)$

18. $(12x + 3y) - (6x + 2y - 4)$

19. $(8a - 6b - 3) - (-2a + 4b + 7)$

20. $(8m + 3n - 4) - (3m - 2n) - 8$