

Section 5.R.2 Simplifying Algebraic Expressions

Go to Section 5.R.2 Learn mode in Hawkes to follow along!

Identifying Like Terms

Like Terms

Like terms (or similar terms) are terms that are _____

Whatever power a variable is raised to in one term, it is _____

▣ Example 1 Identifying Like Terms

Identify the like terms in the following list of terms.

6, $2x$, -10 , $-x$, $3x^2z$, $-5x$, $4x^2z$, 0

Solution

Exercises

Identify the like terms in each list of terms.

1. -5 , 3 , $7x$, 8 , $9x$, $3y$

3. $5xy$, $-x^2$, $-6xy$, $3x^2y$, $5x^2y$, $2x^2$

2. $-2x^2$, $-13x^3$, $5x^2$, $14x^2$, $10x^3$

4. $3ab^2$, $-ab^2$, $8ab$, $9a^2b$, $-10a^2b$, ab , $12a^2$

Simplifying Expressions by Combining Like Terms

Combining Like Terms

▣ Example 2 Combining Like Terms

Simplify each expression by combining like terms.

a. $8x + 10x$

b. $6y - 2y + 3$

c. $2x^2 + 3x + x^2 - x$

d. $4(n - 7) + 5(n + 1)$

e. $3a - 52a^2 + 9$

Solution

ExercisesSimplify each expression by combining like terms.

5. $8x + 7x$

10. $3x - 1 + x$

6. $5x + (-2x)$

11. $5x^2 - 3x^2 + 2x$

7. $-n - n$

12. $13x + 12x^2 + 15x - 35 - 41 - 2x^2$

8. $6y^2 - y^2$

13. $3(n+1) + n$

9. $3x - 5x + 12x$

14. $4(x-1) + 5(x-2)$