

Terms in Expressions

A. Fill in the Blanks

1. In the expression $7x - 11$, the number -11 is called the _____.
2. Terms that have the exact same variables raised to the exact same powers are called _____ terms.
3. The number part of a term that is multiplied by a variable is called the _____.
4. The expression $4a + 9b - c + 2$ has _____ terms.
5. When we combine like terms in $8y - 3y$, the simplified expression is _____.

B. Match the expression in Column A with its simplified form in Column B.

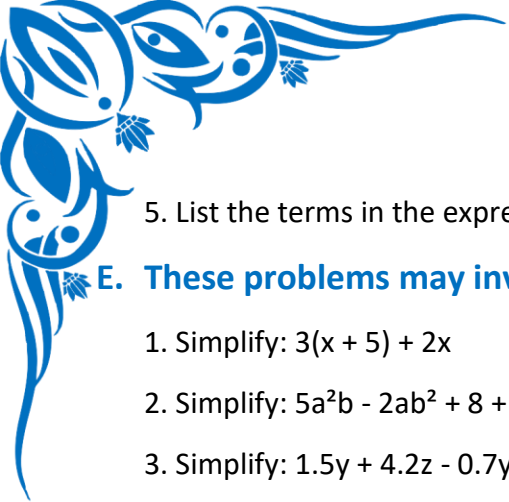
Column A	Column B
1. $7x + 3 - 2x$	A. $2a + 9$
2. $4a + 9 - 2a$	B. $3y + 3z$
3. $5y - 2y + 3z$	C. $5x + 3$
4. $-w + 5w$	D. $4w$
5. $8b - 3 - 8b$	E. -3

C. Identify like terms and simplify the expressions by combining them.

1. From the list, circle all the terms that are "like terms" with $5x$: $5y$, $-2x$, 7 , x , $3x^2$, 5
2. Simplify: $4a + 9a$
3. Simplify: $12b - 5b + 2$
4. Simplify: $7 + 3p - 4p + 6$
5. Simplify: $8x + 3y - 2x + 5y$

D. Identify the basic components of the following expressions.

1. How many terms are in the expression $4x + 7y - 3$?
2. In the expression $9a + 5$, what is the constant?
3. What is the coefficient of b in the term $-6b$?
4. List the variables in the expression $2m + n - 5p$.



5. List the terms in the expression $8p - q + 12$.

E. These problems may involve multiple steps, fractions, decimals, or distribution.

1. Simplify: $3(x + 5) + 2x$

2. Simplify: $5a^2b - 2ab^2 + 8 + 3a^2b + 4ab^2$

3. Simplify: $1.5y + 4.2z - 0.7y + 1.8z$

4. Write an expression for the perimeter of a rectangle with a length of $(4x + 1)$ units and a width of $(2x - 3)$ units. Simplify the expression.

5. Simplify: $(\frac{1}{2})m + (\frac{3}{4})n - (\frac{1}{4})m + (\frac{1}{4})n$

F. Translate the following situations into algebraic expressions and simplify where possible.

1. A ticket to a movie costs \$12. Popcorn costs p dollars. Write an expression for the total cost for 3 people to watch a movie and each buy their own popcorn.

2. You have b books. Your friend has 5 more books than you. Your sister has twice as many books as your friend. Write a simplified expression for the total number of books you all have together.

3. A triangle has side lengths of $(2y + 1)$, $(3y - 5)$, and $4y$. Write and simplify an expression for the perimeter of the triangle.

4. You start a savings account with \$50. Each week, you deposit w dollars. Write an expression for the total amount of money in your account after 8 weeks.

5. A company sells x number of T-shirts for \$15 each and y number of hats for \$10 each. They have to pay \$200 in fixed costs. Write an expression for their total profit.

G. True or False

1. $5x$ and $5y$ are like terms.

2. The simplified form of $6a + 4b - 2a$ is $8a + 4b$.

3. The coefficient of m in the expression $n + m - 7$ is 1.

4. The expression $9xy^2$ is a single term.

5. In the expression $3p - 8$, the constant term is 8.
