

Simple Expressions

A. Complete the sentences with the correct mathematical term or number.

1. A letter used to represent an unknown number is called a _____.
2. In the expression $6k + 11$, the number 11 is the _____.
3. Terms that have the same variable raised to the same power are called _____ terms.
4. The simplified form of $12y - 5y$ is _____.
5. The number that is multiplied by a variable, such as the 9 in $9x$, is called the _____.

B. Match the verbal phrase in Column A with the correct algebraic expression in Column B.

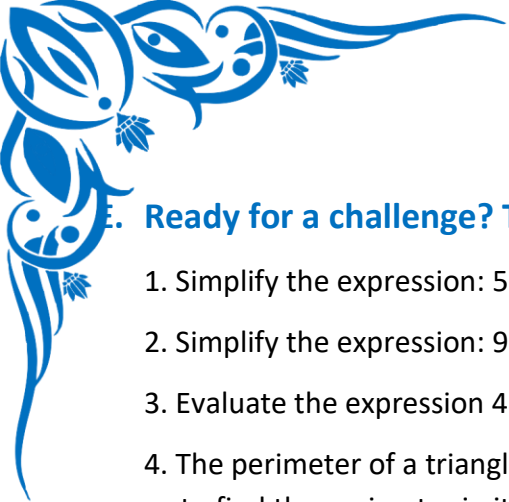
Column A (Verbal Phrase)	Column B (Algebraic Expression)
1. The sum of a number y and 10	A. $2n - 5$
2. The product of 7 and a number x	B. $y + 10$
3. 5 less than twice a number n	C. $k/4$
4. A number k divided by 4	D. $3(p + 6)$
5. Three times the sum of a number p and 6	E. $7x$

C. Simplify the following expressions by combining like terms:

1. $5x + 3x - 2$ Answer: _____
2. $9y + 4 - 2y + 6$ Answer: _____
3. $8a + 2b - 5a + 3b$ Answer: _____
4. $10 + 4m - m + 2$ Answer: _____
5. $4(x + 3)$ Answer: _____

D. Get your brain working with these quick questions!

1. In the expression $7x + 5$, what is the variable?
2. In the expression $4a - 9$, what is the coefficient of a ?
3. In the expression $y + 12$, what is the constant?
4. Write an algebraic expression for "a number n increased by 8".
5. Evaluate the expression $p - 5$ if $p = 15$.



E. Ready for a challenge? Think carefully!

1. Simplify the expression: $5(2x - 3) + 2(x + 7)$
2. Simplify the expression: $9a - (3a - 4b) + 2b$
3. Evaluate the expression $4(m - n) + m^2$ when $m = 5$ and $n = -2$.
4. The perimeter of a triangle is given by the expression $(2x + 1) + (3x - 5) + (x + 8)$. Simplify this expression to find the perimeter in its simplest form.
5. If the expression $8k - 15$ evaluates to 41, what is the value of k ?

F. Translate these real-world scenarios into algebraic expressions

1. A pizza costs \$12. Each additional topping costs t dollars. Write an expression for the cost of a pizza with 4 toppings.
2. You are buying school supplies. Pencils cost p cents each and notebooks cost n cents each. Write an expression for the total cost of 5 pencils and 3 notebooks.
3. Maria is y years old. Her brother, Sam, is 3 years younger than twice her age. Write an expression for Sam's age.
4. A rectangular garden has a width of w meters. Its length is 5 meters longer than its width. Write a simplified expression for the perimeter of the garden.
5. You start a savings account with \$50. Each week, you deposit d dollars. Write an expression for the total amount of money in the account after 8 weeks.

G. True or False

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| 1. $5(x + 2)$ is equivalent to $5x + 2$. | _____ |
| 2. The expressions $7a + 2b$ and $9ab$ are equivalent. | _____ |
| 3. When $x = 4$, the expression $3x + 5$ evaluates to 17. | _____ |
| 4. In the expression $8 - 2y$, the constant is 8. | _____ |
| 5. $4x + x$ simplifies to $4x^2$. | _____ |