LESSON MAKER PRO

Algebra Word Detectives

Spot the parts of algebra statements.

GRADE 6 · 6.PFA.3.a

6.PFA.3.a "Identify and develop examples of the following algebraic vocabulary: equation, variable, expression, term, and coefficient."

NAME _____ DATE _____

NAME THE PARTS

An expression has numbers, variables, and operations, but it does not have an equals sign. An equation has an equals sign. A variable is a letter that can stand for a number, a term is one part separated by + or -, and a coefficient is the number multiplied by a variable.

WORKED EXAMPLE

Identify the equation, variable, coefficient, and terms in $8x + 6 = 30$.

1. The equals sign shows that $8x + 6 = 30$ is an equation.
2. The variable is x, and the coefficient is 8 because 8 multiplies x.
3. The terms in the left expression are $8x$ and 6.

Answer: Equation: $8x + 6 = 30$; variable: x; coefficient: 8; terms: $8x$ and 6.

PRACTICE 6 problems

1 In $5x + 12$, name the variable.

ANSWER _____

2 In $7x - 2$, name the coefficient.

ANSWER _____

3 In the expression $3x + 11$, list the terms.

ANSWER _____

4 Is $14 + x$ an expression or an equation?

ANSWER _____

5 Is $2x + 1 = 17$ an expression or an equation?

ANSWER _____

6 Write an expression with variable x, coefficient 5, and constant 13.

ANSWER _____

APPLY IT Show your work

1 A game club earns 15 points for each round it plays. It also earns 3 bonus points. Write an expression for the total points after x rounds. Then name the variable, coefficient, and terms.

WORK SPACE

ANSWER _____

2 An art club starts with $25. It earns $7 for each ticket it sells and wants to have $53 in all. Write an equation that represents x tickets sold. Then name the variable, coefficient, and the terms in the left expression. Do not solve the equation.

WORK SPACE

ANSWER _____

CHALLENGE One step up

Maya says that 12x + 5 = 41 is an expression because it has numbers and x. Is Maya correct? Explain your reasoning. Then name the variable, coefficient, and terms in the left expression.

WORK SPACE AND ANSWER

ANSWER KEY # Algebra Word Detectives

GRADE 6 · 6.PFA.3.a

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	In 5x + 12, name the variable.	**x**
2	In 7x - 2, name the coefficient.	**7**
3	In the expression 3x + 11, list the terms.	**3x and 11**
4	Is 14 + x an expression or an equation?	**expression**
5	Is 2x + 1 = 17 an expression or an equation?	**equation**
6	Write an expression with variable x, coefficient 5, and constant 13.	**5x + 13**

PART 2 · APPLY IT

1. **15x + 3; variable: x; coefficient: 15; terms: 15x and 3.** Multiply 15 points by x rounds, then add the 3 bonus points. Identify each part of the expression.
2. **7x + 25 = 53; variable: x; coefficient: 7; terms in the left expression: 7x and 25.** Add the money from x tickets to the $25 the club already has. Set that total equal to $53.

CHALLENGE

Maya is not correct. 12x + 5 = 41 is an equation because it has an equals sign. The variable is x, the coefficient is 12, and the terms in the left expression are 12x and 5.

Accept terms in either order. For problem 6, accept 13 + 5x because it is an equivalent expression.