

# Translating Verbal Phrases to Algebraic Expressions

To translate statements into expressions and equations:

- Identify \_\_\_\_\_ that indicate the operation.
- Write the numbers/variables in the correct order.

**KEY WORDS**

The **SUM** of \_\_\_\_\_ and \_\_\_\_\_ : \_\_\_\_\_  
 The **DIFFERENCE** of \_\_\_\_\_ and \_\_\_\_\_ : \_\_\_\_\_  
 The **PRODUCT** of \_\_\_\_\_ and \_\_\_\_\_ : \_\_\_\_\_  
 The **QUOTIENT** of \_\_\_\_\_ and \_\_\_\_\_ : \_\_\_\_\_

Write each verbal phrase as an algebraic expression.

- 1) the sum of 8 and  $t$
- 2) the quotient of  $g$  and 15
- 3) the product of 5 and  $b$
- 4) the difference of 32 and  $x$

**KEY WORDS**

**LESS THAN** (the first number subtracted from the second!)

**MORE THAN** (the first number added to the second!)

SWITCH THE  
ORDER OF  
THE TERMS!

Write the phrase five dollars less than Jennifer earned as an algebraic expression.

Key Words	<i>five dollars less than Jennifer earned</i>
Variable	Let $d$ represent # of \$ Jennifer earned
Expression	$d - 5$

- 5) Eight more than  $x$
- 6) Six less than  $p$
- 7) 14 less than  $f$
- 8)  $p$  more than 10
- 9) 3 more runs than Pirates scored
- 10) 12 less than some number

# KEY WORDS

IS, EQUALS, IS EQUAL TO... Substitute with equal sign.

- 11) Arthur is 8 years younger than Janet
- 12) Kelly's test score is 6 points higher than Mike's
- 13) 5 more than a number is 6.
- 14) The product of 7 and  $b$  is equal to 63.
- 15) The sum of  $r$  and 45 is 79.
- 16) The quotient of  $x$  and 7 is equal to 13.

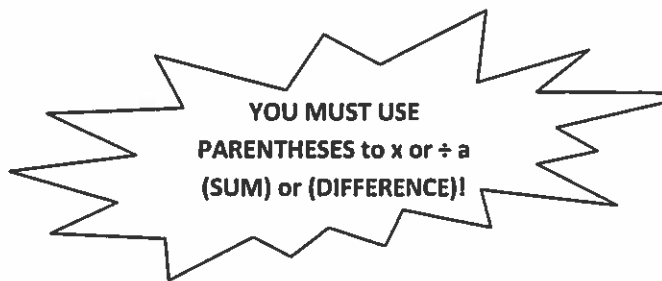
# KEY WORDS

TWICE = DOUBLE = 2 times a number = multiply by 2

HALF = divide the number by 2

- 17) Twice as many points as Bob
- 18) Half the age of Sally

## Writing Two-Step Expressions and Equations



- 19) Six less than twice a number  $x$  is four
- 20) Four more than the product of 2 and  $a$
- 21) Nine times a number decreased by four
- 22) Two less than the quotient of 15 and a number
- 23) Five times the sum of six and some number
- 24) The quotient of 7 and  $d$  decreased by 9
- 25) Twice the difference of  $y$  and three
- 26) The difference of 9 and the quotient of  $s$  and  $-4$
- 27) The sum of 5 and product of 7 and  $x$
- 28) Three more than quotient of 5 and  $a$
- 29) The product of 4 and the difference of  $x$  and 3
- 30) The product of the difference of  $x$  and 3 and 4

Addition Phrases	Expression	Subtraction Phrases	Expression
8 more than a number The sum of 8 and a number x increased by 8 the total of x and 8	$x + 8$	The difference of r and 6 r decreased by 6 6 less than a number 6 subtracted from a number	$r - 6$
Multiplication Phrases	Expression	Division Phrases	Expression
Twice a number The product of 2 and n 2 multiplied by a number 2 times a number	$2n$	The quotient of z and 3 A number divided by 3 The ratio of z and 3	$\frac{z}{3}$

Translate each verbal phrase into an algebraic expression or equation.

- 1) Seven less than a number is 15
- 2) The total of 5 and c
- 3) 7 less than m
- 4) The sum of a number and 16 is 23
- 5) the score increased by 8 points
- 6) The quotient of w and 10 is equal to 7
- 7) 17 more than some number is 57
- 8) \$12 less than the original price is \$48

Translate each algebraic expression or equation into a verbal phrase.

- 9)  $9y$  \_\_\_\_\_
- 10)  $x - 8 = 14$  \_\_\_\_\_
- 11)  $\frac{y}{12} = 24$  \_\_\_\_\_
- 12)  $k + 12$  \_\_\_\_\_

Translate each verbal phrase into an algebraic expression or equation.

13) Seven more than the quotient of a number and 2 is 10.

14) Five less than twice a number is 7.

15) One less than the product of four and a number is 11.

16) Six less than six times a number is 12.

17) Ten more than the quotient of a number and 3 is 12.

18) Seven more than twice a number is 1.

19) The sum of 9 and the quotient of  $x$  and 7 is 11.

20) The product of 8 and the difference of  $n$  and 3.

Translate each expression or equation into a verbal phrase.

21)  $2(5 + t) = 8$  \_\_\_\_\_

22)  $\frac{a}{-2} - 10 = 3$  \_\_\_\_\_

23)  $7(b + 2)$  \_\_\_\_\_

24)  $2c - 5$  \_\_\_\_\_

25)  $17(y + 11)$  \_\_\_\_\_

26)  $3b - 8$  \_\_\_\_\_

27. The sum of a number and 16 is equal to 45.

28. The product of 6 and  $m$  is 216.

29. The difference of 100 and  $x$  is 57.

30. The quotient of  $z$  and 10 increased by 32.

31. \$18 less than the original price is \$48.

32. 17 more than some number is equal to 85.

33. The number of members divided by 6 is 15.

34. The total of Joshua's savings and \$350 is \$925.