

Name/Nombre: _____ Date/Fecha: _____

FCTG

Translate verbal words/phrases into algebraic expressions

- ❖ Step 1: Assign a _____ to represent the _____.
- ❖ Step 2: Identify _____ that indicate (points out) _____.

| OPERATION | KEY WORD/PHRASE | EXAMPLE | TRANSLATION |
|--------------------|------------------------|--|----------------|
| Addition (+) | plus | A number plus three | $x + 3$ |
| | more than | Ten more than a number | $x + 10$ |
| | the sum of | The sum of a number and five | $x + 5$ |
| | the total of | The total of six and some number | $6 + x$ |
| | increased by | A number increased by two | $x + 2$ |
| | added to | Eleven added to a number | $x + 11$ |
| Subtraction (-) | minus | A number minus seven | $x - 7$ |
| | less than | Four less than a number | $x - 4$ |
| | the difference of | The difference of a number and three | $x - 3$ |
| | less | Nine less a number | $9 - x$ |
| | decreased by | A number decreased by twelve | $x - 12$ |
| | subtracted from | Six subtracted from a number | $x - 6$ |
| Multiplication (x) | times | Eight times a number | $8x$ |
| | the product of | The product of fourteen and a number | $14x$ |
| | twice, double | Twice a number; double a number | $2x$ |
| | multiplied by | A number multiplied by negative six | $-6x$ |
| | of | Three fourths of a number | $\frac{3}{4}x$ |
| Division (÷) | the quotient of | The quotient of a number and seven | $\frac{x}{7}$ |
| | divided by | Ten divided by a number | $\frac{10}{x}$ |
| | the ratio of | The ratio of a number to fifteen | $\frac{x}{15}$ |
| Powers (x^n) | the square of; squared | The square of a number; a number squared | x^2 |
| | the cube of; cubed | The cube of a number; a number cubed | x^3 |
| Equals (=) | equals | Seven less than a number equals ten. | $x - 7 = 10$ |
| | is | Three times a number is negative six. | $3x = -6$ |
| | is the same as | Eight is the same as twice a number. | $8 = 2x$ |
| | yields | Twelve added to a number yields five. | $x + 12 = 5$ |
| | amounts to | Nine less a number amounts to twenty. | $9 - x = 20$ |

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DO NOW!

1. Translate each verbal phrase into an algebraic expression.

(1) The total of 5 and c _____

(2) 7 less than m _____

(3) 9 times a number decreased by four _____

(4) Two less than the quotient of 15 and a number _____

(5) The product of 8 and the difference of n and 3 _____

(6) The sum of 5 and product of 7 and x _____

(7) 3 more than quotient of 5 and a _____

(8) Five times the sum of six and a number _____

(9) y raised to the fourth power _____

(10) one half of the k to the third power _____

2. Match the verbal phrase on the left to the corresponding expression on the right. Put the letter for your answer in the answer column.

| | |
|-------------------------------------|------------------|
| 1. the sum of x and 5 | A. $x - 12$ |
| 2. the product of n and 5 | B. $8 - 5n$ |
| 3. 12 less than x | C. $x - 15$ |
| 4. the quotient of a number and 5 | D. $2n + 2$ |
| 5. x subtracted from 12 | E. $15 - x$ |
| 6. 8 minus the product of 5 and n | F. $5n$ |
| 7. The sum of twice a number and 13 | G. $2n - 13$ |
| 8. twice a number minus 13 | H. $2n + 13$ |
| 9. 15 less than x | I. $x + 5$ |
| 10. x subtracted from 15 | J. $10a$ |
| 11. 2 more than twice a number | K. $\frac{x}{5}$ |
| 12. the product of a and 10 | L. $\frac{8}{x}$ |
| 13. the quotient of 8 and x | M. $12 - x$ |

| | |
|----|--|
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| 10 | |
| 11 | |
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| 13 | |