

TOPIC: TRANSLATING SENTENCES TO ALGEBRAIC EQUATIONS

Translating Sentences to Equations

- ◆ Recall: Keywords can be represented by operations and variables to translate a *phrase* to an algebraic **expression**.
- We can use additional keywords to translate a *sentence* to an **equation**: a statement that 2 expressions are ____.

Recall

x, y , etc. $\rightarrow$ A number, a quantity, (an unknown) value

$+$ $\rightarrow$ Sum, increased by, more than

$-$ $\rightarrow$ Difference, decreased by, less than, minus

$\times$ $\rightarrow$ Product, times, twice/double/triple, of

$\div$ $\rightarrow$ Quotient, divided by, per

Operation/Symbol	Common Keywords	Example
Equal	<i>Equals, is, gives, _____ in, yields, _____ to, represents, is the _____ as</i>	Triple a number is 81.

EXAMPLE

Write an equation to represent the given sentence.

The sum of a number x and 12 is the same as three times the number.

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PRACTICE

Write the following as an algebraic expression.

(A)

Seven more than twice a number is equal to 19. Let x be the number.

(B)

The quotient of a number and 6 subtracted from 9 is equal to 1. Let x be the number.

EXAMPLE

Write an equation to represent the scenario.

(A)

Jason has some money M in his wallet. After spending \$18 on a book, he still has \$27 left.

(B)

A bus travels at a constant speed of 60 km/hr for t hours, then travels an additional 35 km. Write an equation that describes the total distance D traveled.