

Translating Algebraic Expressions Guided Notes with Answers

EXAMPLE: Express “**ninety-six less than the quotient of a number and three**,” as an algebraic expression.

$96 - x \div 3$ (the difference of 96 and the quotient of a number and 3) PEMDAS divide, then subtract

$96 - 3 \div x$ (the difference of 96 and the quotient of 3 and a number) PEMDAS divide, then subtract

$3 \div x - 96$ (96 less than the quotient of 3 and a number)

$x \div 3 - 96$ *(96 less than the quotient of a number and 3)

When we see the word “**less**” we know that we are suppose to subtract, but what are we subtracting?

What do the following words mean?

Hopeless means without hope, hope has been taken away.

Helpless means without help, help has been taken away.

Clueless means without a clue, all clues have been taken away.

Therefore “**ninety-six less**,” means without 96, 96 is being subtracted from the quantity that follows the words than.

The same is true of the word “**more**,” except the quantity that precedes more will be added to the quantity that follows the word “than.”

More than Operators

The following words are more than operators; they are implying a grouping or parenthesis; their operation takes priority:

Sum means the answer to an addition problem. The sum of 6 & 3, or $(6 + 3)$.

Difference means the answer to a subtraction problem. The difference of 6 & 3, or $(6 - 3)$.

Product means the answer to a multiplication problem. The product of 6 & 3, or (6×3) .

Quotient means the answer to a division problem. The quotient of 6 & 3, or $(6 \div 3)$.