

**Evaluating Expressions - Guided Lesson Explanation****Explanation#1**

In each instance a variable in the form of a letter represents an unknown number. Expressions are groups of numbers, symbols, and variables that represent another number. There are keywords in each sentence that indicate the operation that is taking place between the number and variables.

a) The sum of  $y$  and 7. The keyword "sum" indicates addition.

Expression for this is  $y + 7$

b) The difference of  $z$  and 8. The keyword "difference" indicates subtraction.

Expression for above is  $z - 8$

c) The product of a number  $r$  and 3. The word "product" indicates multiplication.

Expression for above is  $r \times 3$

**Explanation#2**

a)  $2 + x$

The  $+$  sign indicates a sum.

So it can be written as sum of 2 and  $x$

b) Step 3)  $x \div 8$

Observe the sign between the two integers above. It is the division symbol.

A quotient signifies the operation of division.

So this expression can be written as a quotient of  $x$  and 8.



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c)  $5 - x$

First we have to observe the sign between the two integers in play. It is subtraction. The word "difference" means to use the operation of subtraction.

So this expression can be written as the difference between 5 and x

### **Explanation#3**

a)  $7 \times y$  is an expression shown by words: the sum of 7 and y.

First we should observe the sign between two numbers, as we can see that it is the sign of multiplying. This would indicate a product is being formed.

The question mentions the sum operation.

So the statement is 'false'.

b)  $5 - k$  is an expression shown by words: the difference of 5 and k.

The sign between two numbers is of subtraction. The question mentions the sign of subtraction (difference).

So the statement is 'True'.

