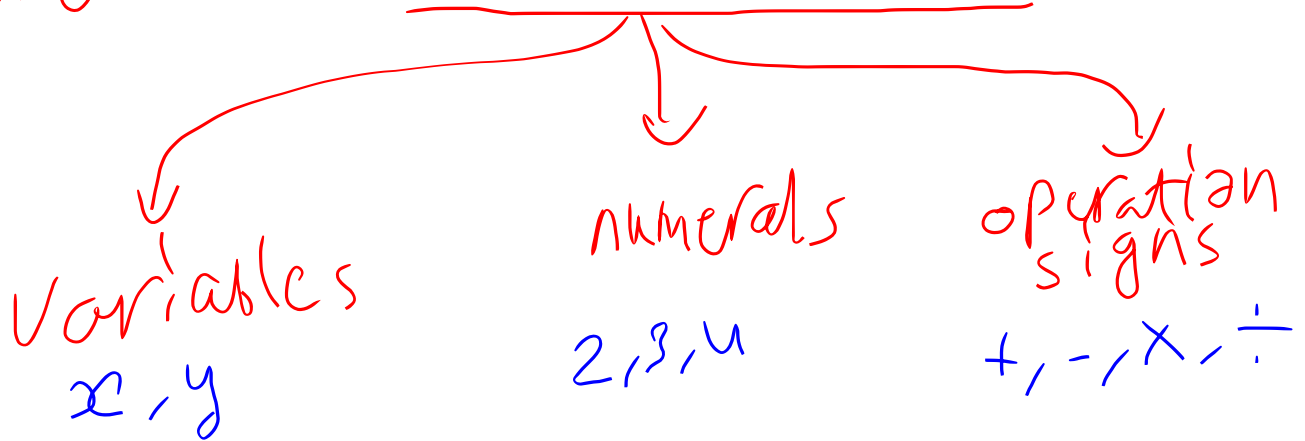


* Evaluate algebraic expressions



$x + 4$, $19 - y$, $5a$, $\frac{x}{y}$
✓ sign numeral

Substituting → replace variable with a number

let $x = 2 \Rightarrow x + 4$
 $2 + 4 = 6$

Process is called evaluating the expression

letter → variable (age)
→ constant (date of birth)

Example

evaluate $\frac{x}{y}$ & $\frac{-x}{-y}$ for $x=72$
 $y=8$

sol $\frac{72}{8} = 9$

$\frac{-72}{-8} = 9$

* $x+y$ $x=38$ & $y=62$

$38+62=100$

Translating to Algebraic Expressions

Addition $+$	Subtraction $-$	Multiplication \times	Division \div
added to	subtracted from	multiplied by	divided by
sum of	difference of	product of	quotient of
plus	minus	times	divided into
more than	less than	twice $2x$ triple $\rightarrow 3x$	ratio of
increased by	decreased by	of	per

Phrase	Algebraic Expression
Eight more than <u>some number</u>	$8 + x = x + 8$
One-fourth of a <u>number</u>	$\frac{1}{4}x = \frac{x}{4}$
Two more than <u>four times some number</u>	$4x + 2 = 2 + 4x$
Eight less than <u>some number</u>	$x - 8$
Five less than the <u>product of two numbers</u>	$xy - 5$
Twenty-five percent <u>of some number</u>	$25\%y = 0.25y$
Twenty-five percent of some number	

H.W

<u>Phrase</u>	<u>Algebraic Expression</u>
Ten more than twice a number	
Half of a number minus three	
The sum of three times a number and seven	
Three-fourths of a number	
Twelve divided by the sum of a number and four	