

PROBLEM SOLVING PROCESS

Class IX
lab 5





Operator and Their Symbols

Operator	Computer Symbol	Example	
Mathematical		Operation	Resultant
Addition	+	$3.0 + 5.2$	8.2
Subtraction	-	$7.5 - 4.0$	3.5
Multiplication	*	$8.0 * 5.0$	40.0
Division	/	$9.0/4.0$	2.25
Integer division	\	$9 \backslash 4$	2
Modulo division	MOD	$9 \text{ MOD } 4$	1
Power	^	$3 ^ 2$	9
Relational			
Equal to	=	$5 = 7$	False
Less than	<	$5 < 7$	True
Greater than	>	$5 > 7$	False
Less than or equal to	<= (two key strokes)	$5 <= 7$	True
Greater than or equal to	>= (two key strokes)	$5 >= 7$	False
Not equal to	<> (two key strokes)	$5 <> 7$	True
Logical			
Not	NOT	NOT True	False
And	AND	True AND True	True
Or	OR	True OR False	True



Logical Operators

NOT

A	Not A	When A Is	The Resultant Is
True	False	NOT True	Is False
False	True	NOT False	Is True

AND

A	B	A AND B	When A Is	When B Is	The Resultant Is
True	True	True	True AND True	Is	True
True	False	False	True AND False	Is	False
False	True	False	False AND True	Is	False
False	False	False	False AND False	Is	False

OR

A	B	A OR B	When A Is	When B Is	The Resultant Is		
True	True	True	True	OR	True	Is	True
True	False	True	True	OR	False	Is	True
False	True	True	False	OR	True	Is	True
False	False	False	False	OR	False	Is	False



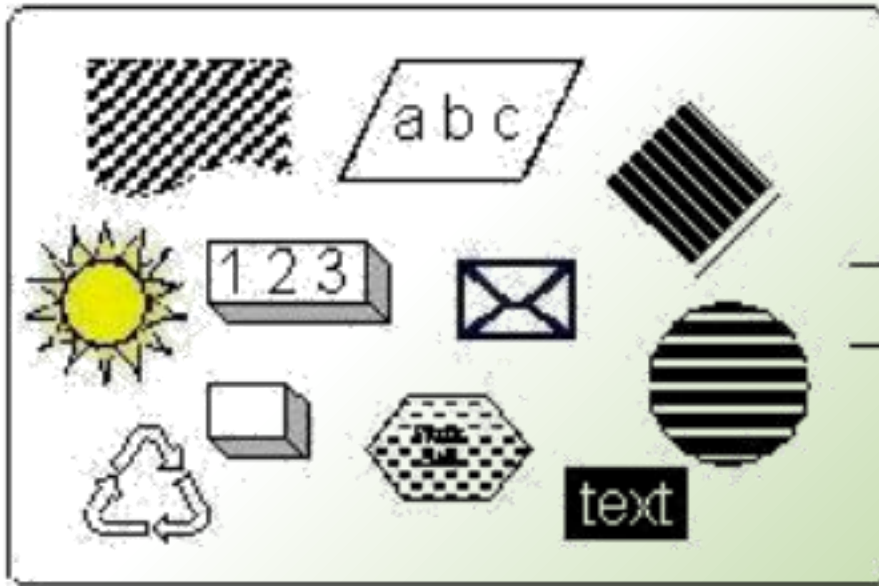
Hierarchy of Operations

Order of Operations	Operand Data Type	Resultant Data Type
() Reorders the hierarchy; all operations are completed within the parentheses using the same hierarchy.		
1. Functions		
Mathematical Operators		
2. Power	Numeric	Numeric
3. \, MOD	Numeric	Numeric
4. *, /	Numeric	Numeric
5. +, -	Numeric	Numeric
Relational Operators		
6. =, <, >, <=, >=, <>	Numeric or string or character	Logical
Logical Operators		
7. NOT	Logical	Logical
8. AND	Logical	Logical
9. OR	Logical	Logical



How the Computer Stores Data

Your Data



Computer Data

```
01110101011010101
10100101011010101
01010101011010101
01000101011010101
01101010101001100
00101011101100111
10101001010101010
```




**Thank
you!**

