# Q Print the patterns using print function

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# Basic Terms

* Variable = Whose value can be changed

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* Rules to declare a variable name

1. Do not use digits at first place.
2. Use only Underscore, digits and alphabet to create a variable.
3. Do not use special symbols and space.
4. Variable name should not be a keyword.

Example:

1A flase

A1 True

A\_1 True

* Literal : A literal is a value represented directly in the code, rather than y a variable or expression.

Ex : 3,6,7,2, ‘a’,’n’etc

* Keyword : Predefined word or Reserved words ex: int,char,float,if,else etc

Note: Java is a typed language that means we need to define type of the data before going to use.

int a = 877

Char b = ‘a’

# Data type in Java

There are two types of data type

1. Primitive Data type
   1. byte (number) 1bytes
   2. short (number) 2bytes
   3. char(single char) 2bytes
   4. boolean(True/False) 1bytes
   5. int(number) 4bytes
   6. long(long number) 8bytes
   7. float(decimal number) 4bytes
   8. double(large decimal number) 8bytes
2. Non-primitive data type
   1. String
   2. Array
   3. Class
   4. Object
   5. Interface

# Output and input function

* Output function
  1. System.out.print()
  2. System.out.println()
* Input function
  1. next : It captures only one word before space or single word
  2. nextLine : It captures the input with space like sentence or paragraph
  3. nextInt : It captures the input integer values
  4. nextByte : It captures input byte values
  5. nextFloat : It captures the input float type value
  6. nextDouble : It captures the input double values
  7. nextBoolean : It captures the input Boolean values
  8. nextShort : It captures the input short values
  9. nextLong : It captures the input long values

Note : We have a class name Scanner for input and we have to import package by using “ import java.util.\*; ” at the top of the program.

# Comment

// Single line comment

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\*/ Multiline Comment