

<table border="1"> <tr><td>T</td><td>F</td></tr> <tr><td>F</td><td>T</td></tr> </table>	T	F	F	T	<table border="1"> <tr><td>1</td><td>0</td></tr> <tr><td>0</td><td>1</td></tr> </table>	1	0	0	1	5 → 0101 ~5 → 1010
T	F									
F	T									
1	0									
0	1									

$$\begin{aligned} \sim 5 &\rightarrow \text{theory} = 10 \\ \sim 5 &\rightarrow \text{practical} = -6 \end{aligned}$$

$$-6 = 10$$

$$-6 \rightarrow \text{abs}(-6) = 6 \rightarrow 0110$$

$$\begin{aligned} \sim 5 &= \text{2's Compliment} \\ &\quad \downarrow \\ &\quad \begin{cases} 1's \text{ Com} \rightarrow 100 \\ +1 \text{ add} \rightarrow \frac{000}{101} \end{cases} \end{aligned}$$

$$\text{MCQ} \rightarrow \sim 5 \quad \text{a) } 2 \quad \text{b) } 3 \quad \text{c) } 4$$

$$\sim n = -n - 1 \quad \text{Formula} \quad \text{d) } -6$$

Conditional Statements:

→ Simple if → Only 1 condition

Statement 8;

Divide Into Parts

$P_1 : r == 0 \quad C = \underbrace{1, 2, 4, 5}_{C \% 3 == 0} \quad r == 0 \& C \% 3 == 0$

$P_2 : r == 1 \quad C = 0, 3, 6 \quad r == 1 \& C \% 3 == 0$

$P_3 : r - C == 2$

2	-	0
3	-	1
4	-	2
5	-	3

$P_4 = r + C == 3$

2	+	6
3	+	5
4	+	4

Time
5
4
3.5
3
2

" X " " "

S LPA

$P_1 : r == 4 \& C \% 3 == 0 \quad P_2 : r == 5 \& C \% 3 == 0$

$P_3 : r + C == 3$

$P_4 : \sqrt{r - C} == -3 \quad \sqrt{C - r} == 3$ Any

Dynamic Patterns:-

Zig Zag Pattern → L

Base Diagram :- $\text{cols} = 9, 13, 17, 21, 25$.
 $\text{rows fixed} = 3$

$r + C = 0 \quad \text{col} = 9 \quad \left\{ \begin{array}{l} r_1 \rightarrow (3, 7, 11, 15) \rightarrow C \% 4 = 0 \\ r_2 \rightarrow \text{Even No } \rightarrow C \% 2 = 0 \\ r_3 \rightarrow 1, 5, 9, 13, 17 \rightarrow C \% 4 = 1 \end{array} \right.$

Syntax of creating a method in Java:-

- * return-type method-name () { Parameters }
- * { }
- * access-modifier return-type method-name () { }
- * access-modifier static return-type method-name () { }
- * Methods can also have optional parameters

Access Modifier Table

A ex...

C++	public	Yes	Yes	Yes	Yes
C	private	Yes	No	No	No
E	protected	Yes	Yes	Yes	Inheritance Yes
Python	default	Yes	Yes	Yes	No
Java {					

↓
P²

What is a package? What is the industry standard of creating a package?

It is a collection of similar classes & interfaces.

Accenture → Canara Bank → Login.java
 com.accenture.canara.login.Login.java;

⇒ com.company.project.module.filename;
 Org. C1/C2 ***

- * Default / no-argument constructor } JVM
- * Parameterized }
- * Copy Constructor

- When we don't create a constructor it is auto-generated by the compiler (JVM).
- A constructor is a special method of a class used to instantiate / initialize objects.
- Same name as the class followed by ().
- It can only be default or public "recommended"
- We can have multiple constructors of a class. This is called Constructor Overloading.
- If we create one constructor, the default one is deleted by the JVM. ***