P

This class includes those Lang. which are recognized by some Deterministic Turing Machine (DTM) in Polynomial time.

NP

It includes those Lang. which are recognized by Non Deterministic Turing Machine (NTM) in Polynomial Time.

P class

Problem	Algo	yes	No
Odd	divide by 2	5	6
Prime (n)	divide by n	53	51
Multiple	n is multiple of y	51, 17	51, 16

NP class

The class NP consists of all decison Problem problems where 'yes' can be verified →

Ex: Example

Sudoku Chess game.

=> Solving a Sudoku is very tough task but verifying a solved sudoku is very easy i.e. a certifier.
So verify the solved one, whether it is correct or not in polynomial time.

Time Complexity:-
In TM this could be measured as no. of moves which are required to perform computation.

Space Complexity:-

- How much storage is required for computation
- In TM no. of cells are used.