1. Print the sum of all numbers from 1 to 100.

2. Print the sum of all odd numbers from 101 to 1000.

3. Print only multiples of a given number from 50 and 500.

4. Generate a clock that displays minutes and seconds. Printing should be done every second. **Ex:**

   00:01
   00:02
   .
   .
   .
   00:59
   01:00

5. Create a stopwatch. Read input in minutes and output countdown in seconds.

6. Print the numbers 1 to 100, print "snap" if number is a multiple of 5, and clap if number is a multiple of 15.

7. Simulate a metro station working. The train starts from specified station and runs to and fro to another specified station. It stops at each station for 30 seconds. Print the

8. Simulate a cricket super over. Generate random numbers from 0-6 (Zero runs indicate a wicket) Count the number of boundaries and wickets.

9. Simulate a game of musical chairs played by 10 students. After each round, display name and ID of eliminated player. Finally, display the name of the winner.

10. Print the following using loops:

a) 1
1 1
1 1 1
1 1 1 1

b) 1
2 2
3 3 3
4 4 4 4

c) 1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
1 2 3 4
1 2 3
1 2
1

d) 1
2 1
3 2 1
4 3 2 1
5 4 3 2 1
4 3 2 1
3 2 1
2 1
1

e) 1
 2
  3
   4
  3
 2
1

f) Print the above triangle 10 times.

g) <u>Square</u>:

```
1 1 1 1 1
1       1
1       1
1       1
1 1 1 1 1
```

h) <u>Rhombus</u>:

```
    1
   1   1
  1       1
 1         1
  1       1
   1   1
    1
```

11. Print 100 digits such that each new digit is the sum of the previous 2 digits in the series (The series starts with the digits 0 and 1)
Ex: 0, 1, 1, 2, 3, 5, 8, 13, 21 ……

12. The user inputs the percentage of 1's in a 10 digit number. All starting digits are 1's as per the input percentage, rest of the digits are zero.

   Eg: Please enter the percentage: 37
        Output: 1 1 1 1 0 0 0 0 0 0

13. Simulate a thermostat.
    When the temperature reaches 25C, it switches ON and decreases the temperature by 2C/min; when the temperature reaches 35C, it switches off.