- **1.Write a logic to check if input number is prime.**

```dart
import 'dart:io';

void check_prime(var number) {
  int flag = 0;

  for (int i = 2; i <= number / 2; i++) {
    if (number % i == 0) {
      flag = 1;
      break;
    }
  }
  if (number <= 1) {
    print('$number neither prime nor composite');
  } else {
    if (flag == 0) {
      print("$number is a prime");
    } else {
      print("$number is not a prime");
    }
  }
}

void main() {
  print('Enter a number');
  int number = int.parse(stdin.readLineSync());
  print('Entered number is:$number');
  check_prime(number);
}
```

- **2.Write a logic to check if input string is Palindrome or not.**
-

```dart
import 'dart:io';

void main() {
  print('Enter string');
  String input = stdin.readLineSync();
  print('Entered string is: $input');
  String reverse_input = input.split('').reversed.join('');

  if (input.toLowerCase() == reverse_input.toLowerCase()) {
    print('Entered String is Palindrome');
  } else {
    print('Entered String is not Palindrome');
  }
}
```

- **3.Write a logic to print Fibonacci Series of input number .**

```dart
import 'dart:io';

void main() {
  int num1 = 0, num2 = 1;
  print('Enter a number');
  int count = int.parse(stdin.readLineSync());
  print('fibonacci series of $count numbers');
  for (int i = 1; i <= count; i++) {
    print(num1);
    int sum = num1 + num2;
    num1 = num2;
    num2 = sum;
  }
}
```

- **4.Write a logic to print Factorial of given number.**
-

```dart
import 'dart:io';

int factorial(int number) {
  if (number == 0) {
    return 1;
  } else {
    return number * factorial(number - 1);
  }
}

void main() {
  print('Enter a number');
  int number = int.parse(stdin.readLineSync());
  if (number < 0) {
    print('factorial does not exist for negative number');
  } else {
    int res = factorial(number);
    print('factorial of $number is $res');
  }
}
```

- **5.Write a logic to create a Simple calculator.**

```dart
import 'dart:io';

void main() {
  print("Enter two numbers");
  double a = double.parse(stdin.readLineSync());
  double b = double.parse(stdin.readLineSync());
  print('1.addition\n2.subtraction\n3.multiplication\n4.division');
  print('Enter Your choice');
  int choice = int.parse(stdin.readLineSync());

  switch (choice) {
    case 1:
      print('addition of $a and $b : ${a + b}');
      break;
```

```
    case 2:
      print('subtraction of $a and $b : ${a - b}');
      break;

    case 3:
      print('multiplication of $a and $b : ${a * b}');
      break;

    case 4:
      print('division of $a and $b : ${a / b}');
      break;
  }
}
```