1. print even number from 2 to 50

Program :

```
package Assignments;
public class EvenNums {
   public static void main(String[] args) {
      for (int i = 2; i <= 50; i += 2) {
         System.out.print(I + “ “);
      }
   }
}
```

Output : 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50

2. print square of numbers from 1 to 10

Program :

```
package Assignments;
public class Squares {
   public static void main(String[] args) {
      for (int i = 1; i <= 10; i++) {
         System.out.println(i + " square : " + (i * i));
      }
   }
}
```

Output :

1 square : 1

2 square : 4

3 square : 9

4 square : 16

5 square : 25

6 square : 36

7 square : 49

8 square : 64

9 square : 81

10 square : 100

3. calculate sum of first 50 numbers

Program :

```
package Assignments;

public class Sum {
    public static void main(String[] args) {
        int sum = 0;
        for (int i = 1; i <= 50; i++) {
            sum += i;
        }
        System.out.println("Sum = " + sum);
    }
}
```

Output : Sum = 1275

4. print multiplication table for 17

Program :

```
package Assignments;
public class MulTable {
    public static void main(String[] args) {
        for (int i = 1; i <= 10; i++) {
            System.out.println(17 + " * " + i + " = " + (17 * i));
        }
    }
}
```

Output :

17 * 1 = 17

17 * 2 = 34

17 * 3 = 51

17 * 4 = 68

17 * 5 = 85

17 * 6 = 102

17 * 7 = 119

17 * 8 = 136

17 * 9 = 153

17 * 10 = 170

5. print reverse numbers from 20 to 1

Program :

```
package Assignments;
public class Reverse {
   public static void main(String[] args) {
      for (int i = 20; i >= 1; i--) {
         System.out.println(i);
      }
   }
}
```

Output : 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

6. print factorial of a number(eg. 5!=5*4*3*2*1)

Program :

```
package Assignments;
public class Fact {
   public static void main(String[] args) {
      int n = 5;
      int fact = 1;
      for (int i = 1; i <= n; i++) {
         fact *= i;
      }
      System.out.println("Factorial of " + n + " is " + fact);
```

```
    }
}
```

Output : Factorial of 5 is 120

7. check if a number is prime

Program :

```
package Assignments;
public class Prime {
    public static void main(String[] args) {
        int num = 7;
        boolean isPrime = true;
        if (num <= 1) {
            isPrime = false;
        } else {
            for (int i = 2; i <= num / 2; i++) {
                if (num % i == 0) {
                    isPrime = false;
                    break;
                }
            }
        }
        if (isPrime) {
            System.out.println(num + " is Prime Number");
        } else {
            System.out.println(num + " is not Prime Number");
        }
    }
}
```

Output : 7 is Prime Number

8. print pyramid pattern

Program :

```
package Assignments;
public class Test {
   public static void main(String[] args) {
      for (int i = 1; i <= 5; i++) {
         for (int j = i; j < 5; j++) {
            System.out.print("  ");
         }
         for (int k = 1; k <= (2 * i - 1); k++) {
            System.out.print("* ");
         }
         System.out.println();
      }
   }
}
```

Output :

```
        *
      * * *
    * * * * *
  * * * * * * *
* * * * * * * * *
```

9. print diamond shape using * sign

Program :

```
package Assignments;
public class Test1 {
   public static void main(String[] args) {
      int n = 5;
      for (int i = 1; i <= n; i++) {
         for (int j = i; j < n; j++) {
            System.out.print(" ");
```

```
            }
            for (int k = 1; k <= (2 * i - 1); k++) {
                System.out.print("*");
            }
            System.out.println();
        }
        for (int i = n - 1; i >= 1; i--) {
            for (int j = n; j > i; j--) {
                System.out.print(" ");
            }
            for (int k = 1; k <= (2 * i - 1); k++) {
                System.out.print("*");
            }
            System.out.println();
        }
    }
}
```

Output :

```
      *
     ***
    *****
   *******
  *********
   *******
    *****
     ***
      *
```

10. Print Fibonacci series up to 10 terms 1 2 3 5...

Program :

```
package Assignments;
```

```
public class Fibonacci {
   public static void main(String[] args) {
      int a = 1, b = 2;
      System.out.print(a + "  " + b + " ");
      for (int i = 3; i <= 10; i++) {
         int c = a + b;
         System.out.print(c + " ");
         a = b;
         b = c;
      }
      System.out.println();
   }
}
```

Output : 1 2 3 5 8 13 21 34 55 89

11. count total digits in a number

Program :

```
package Assignments;
public class Count {
   public static void main(String[] args) {
      int number = 269;
      int count = 0;
      while (number > 0) {
         count++;
         number /= 10;
      }
      System.out.println("Total digits : " + count);
   }
}
```

Output : Total digits : 3

12. check palindrome number

Program :

```
package Assignments;
public class Palindrome {
   public static void main(String[] args) {
      int num = 121;
      int original = num;
      int rev = 0;
      while (num > 0) {
         int digit = num % 10;
         rev = rev * 10 + digit;
         num /= 10;
      }
      if (rev == original) {
         System.out.println(original + " is a palindrome");
      } else {
         System.out.println(original + " is not a palindrome");
      }
   }
}
```

Output : 121 is a palindrome

13. sum of digits of number(6785=6+7+8+5)

Program :

```
package Assignments;
public class SumOfDigits {
   public static void main(String[] args) {
      int num = 269;
      int total_sum = 0;
      while (num > 0) {
         int digit = num % 10;
```

```
            total_sum += digit;
            num /= 10;
        }
        System.out.println("Sum of digits : " + total_sum);
    }
}
```

Output : Sum of digits : 17