Practice 6 – Decision Making

Task 01: Generate two random numbers in range 1 to 5. Check, if their absolute difference is less than equal one, print almost equal, otherwise print not equal:

Sample Run:

```
First Number: 2
Second Number: 5
Numbers are not equal

First Number: 2
Second Number: 3
Numbers are almost equal

First Number: 4
Second Number: 3
Numbers are almost equal

First Number: 5
Second Number: 3
Numbers are not equal
```

Task 02: Extend Q1 and print a third message, "Numbers are exactly equal", if both numbers are same:

Sample Run:

```
First Number: 2
Second Number: 5
Numbers are not equal

First Number: 2
Second Number: 3
Numbers are almost equal

First Number: 3
Second Number: 3
Numbers are exactly equal

First Number: 5
Second Number: 3
Numbers are not equal
```

Task 03: Generate random marks 0 to 100. Calculate and print grade using following table:

```
>= 85 A
>= 80 A-
>= 75 B+
>= 70 B
>=65 B-
>=61 C+
>=58 C
>=55 C-
>=50 D
<50 F
```

Sample Run:

```
Marks: 67
Grade: B

Marks: 81
Grade: A

Marks: 62
Grade: C+
```

Task 04: A shopkeeper has pack of 6 eggs and he sells eggs in packs, customer has to purchase number of packs according to their requirements. Write a program to input the number of eggs and print the minimum number of packs required by the customer.

Sample Run:

```
Eggs: 15
Packs: 3
Eggs: 12
Packs: 2
Eggs: 19
Packs: 4
```

Task 05: Input width and length of two rectangles. Find area of both rectangles. Check and print, which rectangle is smaller?

Sample Run:

```
Width of first rectangle: 5
Length of first rectangle: 3
Width of second rectangle: 6
Length of second rectangle: 2
Result second rectangle is smaller

Width of first rectangle: 4
Length of first rectangle: 4
Width of second rectangle: 7
Length of second rectangle: 3
Result: First rectangle is smaller
```