

### Q1: Write a program to check the following conditions.

Users are required to enter two float variables a and b using the keyboard (STDIN).

Please check the following conditions.

- If a is greater than b then print: float a > b
- If a is less than or equal to b then print: float a <= b

Below is an example of how the program will run:

Enter the value 5.0 for 'a' and the value 4.0 for 'b'

```
5
4

OUTPUT:
float a>b
Press any key to continue . . .
```

### Q2:

Users are required to enter non-negative integer variables using the keyboard (STDIN).

The system displays the product of all **even numbers** that are greater than or equal to 2 and smaller than or equal to half of n.

Below is an example of how the program will run when entering the value of 9 for 'n':

```
9
OUTPUT:
8
Press any key to continue . . .
```

**Q3:**

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Your program allows users to enter 5 float numbers.

The system displays the entered numbers in descending order.

Below is an example of how the program will run:

```
9.4
8.2
6.3
7.2
5.1

OUTPUT:
9.400000 8.200000 7.200000 6.300000 5.100000
Press any key to continue . . .
```

**Q4:**

Your program allows users to enter an integer number n.

The system displays an inverted right triangle with the height = n.

Below is an example of how the program will run:

```
5
OUTPUT:
*****
*****
***
**
*
Press any key to continue . . .
*****
```

**Q5:**

Your program allows users to enter array of n integers, where n is entered by the user (n should be kept as a small value, in this case,  $n \leq 10$ ). Your program should then print the sum of squared of each even integer.

Hint: It is possible to use `int* array = (int*)malloc(sizeof(int)*n)` to create a dynamic array

Below is an example:

```

5
1
2
4
1
3

OUTPUT:
20
Press any key to continue . . .

```

**Q6:**

Your program allows users enter a long string 'o' and a short string 'p'. The system finds the occurrences of 'p' in 'o' and replaces them by the reversed of 'p'. It then prints out the modified string 'o'.

Below is an example:

```

ccbadefgba
ba

OUTPUT:
ccabdefgab

Press any key to continue . . .

```

**Q7:**

Your program should allow users to find the two-digit number(s) that appear(s) the most in the array of 7 integers. Then your program should print out the found two-digit numbers.

Below are some examples to show how the program works:

There is only one most appearing two-digit number	There is no two-digit number	There are more than one most appearing two-digit numbers
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```

1
3
5
7
12
12
12

OUTPUT:
12
Press any key to continue . . .

```

```

1
3
5
7
9
1
2

OUTPUT:
no two-digit number
Press any key to continue . . .

```

```

10
10
1
2
3
12
12

OUTPUT:
10 12
Press any key to continue . . .

```

#### **Q8:**

Your program should allow users to enter a character, then it should display the location of that character in the ASCII table and its Oct.

Example:

```
a
OUTPUT:
97 0141
Press any key to continue . . .
```

**Q9:**

Your program should allow users to enter an integer number 'n', then it should display the sum of all the digits forming 'n'.

Example:

```
12345
OUTPUT:
15
Press any key to continue . . .
```

**Q10:**

Your program should allow users to enter an integer number 'n', then it should display as follows.

If 'n' is prime number, displays: Not Prime

If 'n' is not prime number, displays: Prime

7

OUTPUT:

Not Prime

Press any key to continue . . .

12

OUTPUT:

Prime

Press any key to continue . . .