Level 2(If else)

1. **Reminder of 2 numbers**

   Write a program to find remainder of two given numbers

   Input Format:

   First line contains space separated two integer input n,m.

   Output Format:

   Print reminder of 2 numbers if n>m else print -1

   Sample Input:

   20 6

   Sample Output:

   2

   Sample Input:

   10 20

   Sample Output:

   -1

2. **Grading System.**

   Write a program to find grade of the student marks

   - If marks scored 90+ then print A+.
   - If marks scored 80+ then print A.
   - If marks scored 70+ then print B+.
   - If marks scored 60+ then print B.
   - If marks scored 50+ then print C+.
   - If marks scored 40+ then print C.
   - If marks scored less than 40 then print "Fail".
   - If marks scored is less than 0 or greater than 100 then print "Invaild".

Input Format:

First line contains a single integer input n.

Output Format:

Print its respective grade as per the n input

Sample Input:

83

Sample Output:

A

Sample Input:

9

Sample Output:

Invaild

Sample Input:

38

Sample Output:

Fail

3. **Largest Number**

   Write a program to find the largest number among 4 integer numbers

   Input Format:

   First line contains space separated three integer input n,m,l,k.

   Output Format:

   Print largest number of 4 numbers

Sample Input:

10 25 5 30

Sample Output:

30

4. **Smallest Number**

Write a program to find the smallest number among 4 integer numbers

Input Format:

First line contains space separated three integer input n,m,l,k.

Output Format:

Print smallest number of 4 numbers

Sample Input:

1 3 5 4

Sample Output:

1

5. **Swap 2 Numbers**

Write a program to swap two numbers.

Input Format:

First line consists of a positive integer n1.

Second line consists of a positive integer n2.

Output Format:

Prints the required result before and after swapping the numbers.

Sample Input:

10 20

Sample Output:

Before Swapping

10 20

After Swapping

20 10

Level 1(Loops and if)

1. **Factors of number**

   Write a program to find factors of given number

   Input Format:

   First line consists of a positive integer n

   Output Format:

   Print the space separated integer factors of given number

   Sample Input:

   20

   Sample Output:

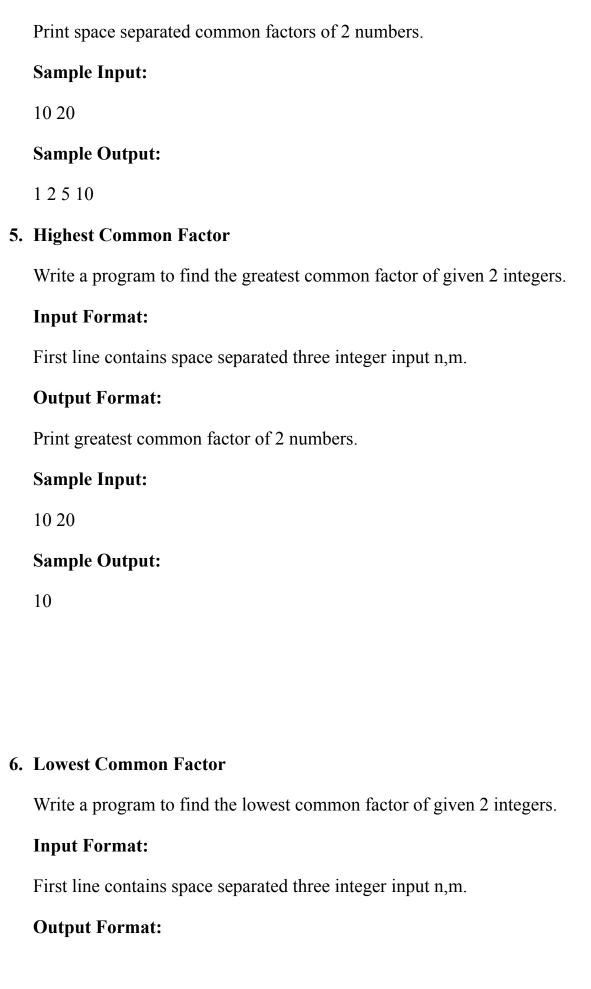   1 2 4 5 10 20

2. **Count factors of number**

   Write a program to count factors of given number

   Input Format:

   First line consists of a positive integer n

   Output Format:

Print the integer count.

Sample Input:

20

Sample Output:

6

3. Prime Number

Write a program to find whether the given number is a prime number or not.

Input Format:

First line consists of a positive integer n

Output Format:

Print Yes if the number is prime, else print No

Sample Input:

11

Sample Output:

Yes

4. Common Factors

Write a program to find common factors of given 2 integers.

Input Format:

First line contains space separated three integer input n,m.

Output Format:

Print space separated common factors of 2 numbers.

Sample Input:

10 20

Sample Output:

1 2 5 10

5. **Highest Common Factor**

   Write a program to find the greatest common factor of given 2 integers.

   Input Format:

   First line contains space separated three integer input n,m.

   Output Format:

   Print greatest common factor of 2 numbers.

   Sample Input:

   10 20

   Sample Output:

   10

6. **Lowest Common Factor**

   Write a program to find the lowest common factor of given 2 integers.

   Input Format:

   First line contains space separated three integer input n,m.

   Output Format:

Print lowest common factor of 2 numbers.

Sample Input:

10 20

Sample Output:

1

7. Lowest Common Factor Excluding 1 and 2

Write a program to find the lowest common factor of given 2 integers.

Input Format:

First line contains space separated three integer input n,m.

Output Format:

Print lowest common factor of 2 numbers excluding 1 and 2

Sample Input:

10 20

Sample Output:

5

8. Common Multiples

Write a program to print common multiples of 2 numbers.

Input Format:

First line contains a single integer input n.

Second line contains space separated 2 integer input a,b.

Output Format:

Print first **n** common multiples of a and b.

Sample Input:

9

3 4

Sample Output:

12 24 36 48 60 72 84 96 108

9. **Least Common Multiple**

Write a program to print least common multiple of 2 numbers

Input Format:

First line contains space separated 2 integer input a,b.

Output Format:

Print least common multiple of a and b.

Sample Input:

8 12

Sample Output:

24

10. **Sum of n natural numbers**

Write a program to find sum of first N natural numbers

Input Format:

First line contains a single integer input n.

Output Format:

Print sum of n natural numbers

Sample Input:

100

Sample Output:

5050