Final Exam FSD 06 JohnAbbott college

1-

All Factors

Write a method named **printFactors** with one parameter of type **int** named number.

If number is < 1, the method should **print "Invalid Value"**.

The method should print all factors of the number. A factor of a number is an integer which divides that number wholly (i.e. without leaving a remainder).

For example, 3 is a factor of 6 because 3 fully divides 6 without leaving a remainder. In other words 6 / 3 = 2.

EXAMPLE INPUT/OUTPUT:

- `printFactors(6);` → should **print 1 2 3 6**
- `printFactors(32);` → should **print 1 2 4 8 16 32**
- `printFactors(10);` → should **print 1 2 5 10**
- `printFactors(-1);` → should **print "Invalid Value" since number is < 1**

```
Public static void printFactors(int number){
}
```

2-Write a program that reads student scores, gets the best score, and then assigns grades based on the following scheme:

Grade is A if score is >= best – 10

Grade is B if score is >= best - 20;

Grade is C if score is >= best - 30;

Grade is D if score is >= best - 40;

Grade is F otherwise.

The program prompts the user to enter the total number of students, then prompts the user to enter all of the scores, and concludes by displaying the grades.

Sample output

Enter number of students now: 4

Now enter 4 space separated scores:

23 34 56 77

Student 0 score is 23 and grade is F

Student 1 score is 34 and grade is F

Student 2 score is 56 and grade is C

Student 3 score is 77 and grade is A

HINT: you need to use nextInt() to get the values with space.

3- Write a program that generates 100 random integers between 0 and 9 and displays the count for each number.

Hint: use arrays to keep the count

Sample output

11 counts of 0

12 counts of 1

10 counts of 2

11 counts of 3

6 counts of 4

12 counts of 5

9 counts of 6

9 counts of 7

8 counts of 8

12 counts of 9

4-Return true if the string "good" and "bad" appears the same number of times in the given string

Public static Boolean goodBad(String word){

}

Example:

goodBad("goodbad")→true

goodBad("goodgood")→false

goodBad ("1good1goobabad") → true