Case Study 5: ARRAY

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CS-3B

Problem:

In a tempo traveller, 10 persons are travelling with their luggage. On a check post, the allowed weight is 3 tons. The weight of traveller is 1800 kgs and the luggage it carries is 400 kgs. Now the weights of the persons are given in an array. To avoid over weight challan, the driver requested 'n' persons to cross the check post by walking. Find out the minimum value of n as per above scenario.

Constraint:
Weight of a person is in the range from 10 to 200.
Fractional weight not allowed.
Driver weight is 100 kgs. Driver's weight is also considered as the 11th person.

Code:

```
import java.util.*;

public class caseStudy5
{
    public static void main(String args[])
    {
        Scanner sc=new Scanner(System.in);
        int n=0,sum=0,min,t;
        int weight[]=new int[10];
        for(int i=0;i<10;i++)
```

```java
    weight[i]=sc.nextInt();
for(int i=0;i<9;i++)
{
    min=i;
    for(int j=i+1;j<10;j++)
        if(weight[j]<weight[min])
        min=j;
    t=weight[i];
    weight[i]=weight[min];
    weight[min]=t;
}
for(int i=0;i<10;i++)
{
    sum+=weight[i];
    if(sum>700)
    {
        n=10-i;
        break;
    }
}
System.out.print("Number of passengers who'll walk = " + n);
sc.close();
```

```
        }

}
```

Output:

PROBLEMS 1   OUTPUT   DEBUG CONSOLE   TERMINAL

E:\Codechef Contest\Practice> cmd /C ""C:\Program Files\Java\jdk-18.0.2.1\bin\java.exe" -XX:+ShowCodeDetailsInExceptionMessages -cp C:\Users\rachi\AppD
ata\Roaming\Code\User\workspaceStorage\604a35f2d4e8aae968d2594141e7effd\redhat.java\jdt_ws\Practice_5142e049\bin caseStudy5 "
689
34
56
78
23
67
34
77
23
67
Number of passengers who'll walk = 1
E:\Codechef Contest\Practice> cmd /C ""C:\Program Files\Java\jdk-18.0.2.1\bin\java.exe" -XX:+ShowCodeDetailsInExceptionMessages -cp C:\Users\rachi\AppD
ata\Roaming\Code\User\workspaceStorage\604a35f2d4e8aae968d2594141e7effd\redhat.java\jdt_ws\Practice_5142e049\bin caseStudy5 "
45
78
34
89
78
90
110
150
67
89
Number of passengers who'll walk = 1
E:\Codechef Contest\Practice> cmd /C ""C:\Program Files\Java\jdk-18.0.2.1\bin\java.exe" -XX:+ShowCodeDetailsInExceptionMessages -cp C:\Users\rachi\AppD
ata\Roaming\Code\User\workspaceStorage\604a35f2d4e8aae968d2594141e7effd\redhat.java\jdt_ws\Practice_5142e049\bin caseStudy5 "

78
67
89
56
89
90
98
96
69
74
Number of passengers who'll walk = 2
E:\Codechef Contest\Practice>