Question\_1: Currency

In Indian Currency notes and coins are available from Rs. 1, Rs. 2, Rs. 5, Rs. 10, Rs. 20, Rs. 50, Rs. 100, Rs. 200, Rs. 500, and Rs. 2000. A person saves a valid amount not exceeding a sum of Rs. 25000 with least number of notes or coins. Write a program to determine the number of notes or coins when the total saving amount is given. IT will display “Error” for any invalid cause of the program.

Input Format

An Integer representing the valid amount.

Output Format

10 space separated integers representing the frequency of the denomination respectively for Rs. 2000, Rs. 500, Rs. 200, Rs. 100, Rs. 50, Rs. 20, Rs. 10, Rs. 5, Rs. 2, Rs. 1.

Constraints

A valid amount is always greater than zero.

Time Limit2s.Each test case should pass in 2s. Sample Input 1788 Sample Output 0 3 1 0 1 1 1 1 1 1

**Real Test Data**

| **No.** | **Input** | **Output** |
| --- | --- | --- |
|  |  |  |
| 1 | 13 | 0 0 0 0 0 0 1 0 1 1 |
| 2 | -9 | Error |
| 3 | 27588 | Error |
| 4 | 2888 | 1 1 1 1 1 1 1 1 1 1 |

**Problem Statement: Daily Market**

Ram babu has five family members including parents, wife and only child. He spends Rs.X, Rs.Y, Rs.Z, Rs. T and Rs. W for Milk, non-veg, fruits, grocery and Vegetables each day respectively where Y is the maximum among all and every item must have some nonzero cost. If all X, Y, Z, T, W, and the current month and year is given, write a program to estimate the daily and monthly expenses for Ram babu for that month. If the input condition does not satisfy, it will display "Error" as output.

Input Format

The cost of the five items and the integer index of the month and the year. All are space separated.

Output Format

Space separated daily and monthly expenses.

Constraints

The cost of the five items would be a valid one. Month would be given as the corresponding integer ranging 1-12. A year would be valid integer.

Time Limit2s.Each test case should pass in 2s. Sample Input 100 200 150 175 70 8 2020 Sample Output 695.000000 21545.000000

Real Test Data

| No. | Input | Output |
| --- | --- | --- |
|  |  |  |
| 1 | 100 200 300 500 20 3 2020 | Error |
| 2 | 100 200 150 175 70 18 2020 | Error |
| 3 | 100 200 150 175 70 18 -20 | Error |
| 4 | 120 310 300 200 100 2 2020 | 1030.000000 29870.000000 |
| 5 | 75.5 300 200 250.5 125 10 2021 | 951.000000 29481.000000 |
| 6 | 125.5 335.5 255 300.5 100.5 2 2016 | 1117.000000 32393.000000 |

Problem Statement: Swan & Eggs

A farmer has N number of swans of different ages. A swan can give approximately four eggs in a week when it will be 13 months of age. The farmer usually exports eggs monthly. If the valid ages of the swans are given in weeks at the beginning of a month, then write a program to compute the total number of eggs in the end of the month. A month is considered as 4 weeks.

Input Format

The number of swan and their age in integer and separated by space.

Output Format

The total number of eggs at the end of the month.

Constraints

The age of any swan must be valid one.

Time Limit2s. Each test case should pass in 2s.Sample Input 4 51 52 53 54 Sample Output 60

Real Test Data

| No. | Input | Output |
| --- | --- | --- |
|  |  |  |
| 1 | 0 | 0 |
| 2 | 5 49 50 51 52 53 | 56 |
| 3 | -3 | Error |
| 4 | 4 45 60 0 123 | Error |
| 5 | 5 12 25 30 42 10 | 0 |
| 6 | 6 51 50 48 49 52 50 | 48 |
| 7 | 3 72 56 84 | 48 |

Problem Statement: Magical Number

Let a N digit number is given, P and Q are two numbers, which hold the multiplication of all even and odd position digits respectively. If P is greater or equal to Q then the number is "Dominant", otherwise "Magical". The digit will not be considered, if it is zero and N must not be greater than ten. Write a program to find Dominant or magical number among K given numbers. For any invalid reason it will display "Error". The negative numbers are invalid.

Input Format

Total numbers input and the individual number separated by space.

Output Format

Space separated conclusion of each number whether they are "Magical", "Dominant" or "Error".

Constraints

The numbers given never be negative. Zero in the digits never be considered in multiplication

Time Limit2s.Each test case should pass in 2s. Sample Input 4 65 56 0 12345 Sample Output Magical Dominant Error Magical

Real Test Data

| No. | Input | Output |
| --- | --- | --- |
|  |  |  |
| 1 | 2 123456789012 1254 | Error Dominant |
| 2 | 6 1 2 3 4 5 6 | Magical Magical Magical Magical Magical Magical |
| 3 | 1 101010 | Magical |
| 4 | 3 -121 0 45 | Error Error Dominant |
| 5 | -10 | Error |

5. If the birthday and current date is given for a man...then calculate the total number of days of his life at current point of time. The date of birth and the current date is given. The total weeks of his life will decide whether the will would be granted or not. If the sum all the prime factors is greater than the sum of the non-prime factors, he will get it.