Homework #2

Due date: 21:30, October 13th, Thursday, 2015

Problem statement

A perfect number is a positive integer that is equal to the sum of all its positive, proper divisors; for example, 6, which equals 1 + 2 + 3, and 28, which equals 1 + 2 + 4 + 7 + 14, are perfect numbers. A positive number that is not perfect is imperfect and is deficient or abundant according to whether the sum of its positive, proper divisors is smaller or larger than the number itself. Thus, 9, with proper divisors 1, 3, is deficient; 12, with proper divisors 1, 2, 3, 4, 6, is abundant."

Requirements

1. Write a C program that is capable of handling input.
2. See the sample run below for the required output format.
3. Given a number N (1<N<10000), determine the number of deficient, perfect and abundant numbers in the range of 2 to N.

Submission

Be sure to upload your source code to E3 by the due date and name your file as "**HW2_xxxxxxx.c**", where **xxxxxxx** is your student ID.

Sample run

```
Please input N:30
DEFICIENT:22
PERFECT:2
ABUNDANT:5
```

Hint

You may need to use nested for-loop(a for-loop inside another for-loop) to achieve the goal.