

# Deficient, Perfect, and Abundant

Write a program that reads a positive integer, determines if the integer is *deficient*, *perfect*, or *abundant*, and outputs the number along with its classification.

A positive integer,  $n$ , is said to be *perfect* if the sum of its proper divisors equals the number itself.

Proper divisors include 1 but not the number itself.

If this sum is less than  $n$ , the number is *deficient*.

If the sum is greater than  $n$ , the number is *abundant*.

Valid input integers are in the range 1 to 32500.

Invalid inputs should be ignored, with the input prompt repeated.

## Sample input / output session

```
4
4 is a deficient number.
```

## Sample input / output session

```
6
6 is a perfect number.
```

## Sample input / output session

```
12
12 is an abundant number.
```

## Sample input / output session

```
bananas
8
8 is a deficient number.
```