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## Perfect Numbers

X89384\_en

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An integer  $n$  greater than zero is perfect if its equal to the sum of its divisors (except itself). Therefore, 6 is perfect since the sum of its divisors (but itself) is  $1 + 2 + 3 = 6$ . In contrast, 8 is not perfect since  $1 + 2 + 4 = 7$  which is diferent from 8.

Write a function `is_perfect_number(n)` that given the integer number  $n$  greater than zero determines if  $n$  is perfect or not.

### Observation

Until 2016 only 49 perfect numbers were known! Probably the same number that are known nowadays!

### Sample session

```
>>> is_perfect_number(6)
True
>>> is_perfect_number(8)
False
>>> is_perfect_number(28)
True
>>> is_perfect_number(496)
True
>>> is_perfect_number(1)
False
```

### Problem information

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Generation : 2020-10-03 12:34:46

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