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## Perfect numbers

P34091\_en

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Write a function that tells if a natural  $n$  is perfect.

A natural number is called *perfect* if it is equal to the sum of all its divisors except itself. For instance, 28 is perfect, because  $28 = 1 + 2 + 4 + 7 + 14$ .

### Interface

C++	<b>bool</b> <i>is_perfect</i> ( <b>int</b> <i>n</i> );
C	<b>int</b> <i>is_perfect</i> ( <b>int</b> <i>n</i> );
Java	<b>public static boolean</b> <i>isPerfect</i> ( <b>int</b> <i>n</i> );
Python	<i>is_perfect</i> ( <i>n</i> ) # returns bool <i>is_perfect</i> ( <i>n</i> : <i>int</i> ) → <i>bool</i>

### Precondition

$n$  is a natural number.

### Observation

You only need to submit the required procedure; your main program will be ignored.

### Problem information

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