
Perfect numbers

P34091_en

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++	bool <i>is_perfect</i> (int <i>n</i>);
C	int <i>is_perfect</i> (int <i>n</i>);
Java	public static boolean <i>isPerfect</i> (int <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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