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** *is_perfect* (**int** *n*);
C	**int** *is_perfect* (**int** *n*);
Java	**public static boolean** *isPerfect* (**int** *n*);
Python	*is_perfect* (*n*) # returns bool
	is_perfect (*n*: **int**) $->$ **bool**

Precondition

@n@ is a natural number.

Observation

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

Problem information

Author: Jordi Petit
Translator: Carlos Molina

Generation: 2026-01-25T10:20:24.164Z