Function Lab

For this exercise, you will write a function and test it with a series of arguments.

Program Requirements

Write a function with two parameters, ***a*** and ***b***. It returns true if ***a*** is a power of ***b***. That is, if there is some number n such that $\boldsymbol{a} = \boldsymbol{b^n}$. For example, 27 is a power of 3 since 27 = 3^3 , but 27 is not a power of 9; 16 is a power of 4 since $16 = 4^2$, 16 is also a power of 2 since 16 = 2^4, but 16 is not a power of 8, even though it is a multiple of 8.

You are to use the following algorithm: ***a*** is a power of ***b***, if ***a*** is divisible by ***b*** and ***a/b*** is divisible by ***b***.

Remember to check for the two default causes (***a*** is a power of ***a*** and ***1*** is a power of ***a***).

Required tests

Check your function with the following values:

A	B	Return Value
5	5	True
25	5	True
125	25	False
1	13	True
64	4	True
27	9	False
256	2	True