

## Smallest multiple

2520 is the smallest number that can be divided by each of the numbers from 1 to 10 without any remainder.

What is the smallest positive number that is *evenly divisible* by all of the numbers from 1 to 20?

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### Solution

Compiling the accompanying C program results in

232 792 560.

The second condition of the `for` loop is what must be false for the loop to terminate. It does so only when the modulus of  $x$  with all numbers from 1 to 20 is zero.