

The prime numbers are not regularly spaced. For example from 2 to 3 the gap is 1. From 3 to 5 the gap is 2. From 7 to 11 it is 4. Between 2 and 50 we have the following pairs of 2-gaps primes: 3-5, 5-7, 11-13, 17-19, 29-31, 41-43

A prime gap of length n is a run of $n-1$ consecutive composite numbers between two successive primes (see: <http://mathworld.wolfram.com/PrimeGaps.html>).

We will write a function gap with parameters:

g (integer ≥ 2) which indicates the gap we are looking for

m (integer ≥ 2) which gives the start of the search (m inclusive)

n (integer $\geq m$) which gives the end of the search (n inclusive)

In the example above `gap(2, 3, 50)` will return `[3, 5]` or `(3, 5)` or `{3, 5}` which is the first pair between 3 and 50 with a 2-gap.

So this function should return the first pair of two prime numbers spaced with a gap of g between the limits m, n if these numbers exist otherwise `nil` or `null` or `None` or `Nothing` (depending on the language).

In C++ return in such a case `{0, 0}`. In F# return `[]`. In Kotlin return `[]`

#Examples: `gap(2, 5, 7) --> [5, 7]` or `(5, 7)` or `{5, 7}`

`gap(2, 5, 5) --> nil`. In C++ `{0, 0}`. In F# `[]`. In Kotlin `return []`

`gap(4, 130, 200) --> [163, 167]` or `(163, 167)` or `{163, 167}`

`[193, 197]` is also such a 4-gap primes between 130 and 200 but it's not the first pair

`gap(6, 100, 110) --> nil` or `{0, 0}`: between 100 and 110 we have 101, 103, 107, 109 but 101-107 is not a 6-gap because there is 103 in between and 103-109 is not a 6-gap because there is 107 in between.