
Chain of primes

X22094_en

You have to program the function *has_prime_chain* below. Remember that a non negative integer n is prime if and only if n is greater than one and the only divisors of n are one and n . The following auxiliar function may be helpful.

```
def is_prime(n):
    '''
    Requires a non negative integer n.
    Returns True when n is prime
    Returns False when n is not prime
    '''
    if n < 2:
        return False
    d = 2
    while d*d <= n:
        if n%d == 0:
            return False
        d += 1
    return True
```

- Write a function *has_prime_chain(f, k)* that given a list f of non negative integers and an integer k greater than zero returns the first valid index of f where a chain of primes of size k starts. If there is no such valid index it has to return -1 . A chain of primes is a block of consecutive numbers in the list all of them being prime, delimited by non prime numbers or the ends of the list.

Scoring

The function counts 100 points.

Sample session

```
>>> has_prime_chain([6, 2, 3, 5, 2], 3)
-1
>>> has_prime_chain([6, 2, 3, 5, 2], 4)
1
>>> has_prime_chain([1, 2, 3, 4, 5, 7, 11], 3)
4
>>> has_prime_chain([2, 3, 4, 5, 6, 7], 1)
3
```

Problem information

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Generation : 2016-11-28 17:40:15

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