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-5	DETAILS Name REPAMOD	No
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3/4	SUM OF NUMBERS AT PRIME FACTORS	10 3BT
(EXPERIMENT Fittle SUM OF NUMBERS AT PRIME FACTORS ARROADIO 19 3 BRD 3 CDD 19 3	20.
,0000	SUM OF NUMBERS AT PRIME FACTORS Description Description	200
,	Thine factors of a positive integer are the prime numbers that divide that integer exactly.	BRIS
2	Given an array arr of n integers and a positive integer num.	
10 3BR	Let's suppose prime factorization of num is: $p^a x q^b x r^c x x z^f$, where p,q,rz are prime numbers.	3CD0193
	Sum of numbers in array array funces of prime factors of number num is. a x arrep; + b x arrep; + c x arrep;	3000
3R23CD	You are given an array arr of size n and a positive integer num. You are required to calculate the sum of numbers in arr as mentioned above, and print the same.	(
3223	Note:	10 3BR2
	• If arr is empty, print -1.	,100
choto	If prime factor of num not found as indices, print 0.	
CO		3R23CDC
	The input consists of three lines:	,
3BR1	 The first line contains an integer, i.e. n. The second line contains an array arr of length of n. 	40
\	The third line contains an integer num	'coo,
-0	The input will be read from the STDIN by the candidates.	
5R23CD	Output Format:	BRI
·	Print the sum that was mentioned in the problem statement.	JB93BRV
C	Example:	_(
	Input:	W. Balli
	6	BEE
	11 21 32 45 1 23	્રેન્
	6	3 Elife House
	Output:	350
	77	-12J
	Explanation:	(b) 33 fre

Source Code:

BJ3Cr

ADON

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Balair

from collections import defaultdict
def prime_factors(num):
 factors = defaultdict(int)
 while num % 2 == 0:
 factors[2] += 1
 num //= 2
 for i in range(3, int(num**0.5) + 1, 2):
 while num % i == 0:
 factors[i] += 1
 num //= i

if num > 2:

factors[num] += 1
return factors

def calculate_prime_index_sum(arr, num):

if not arr:
 return -1
factors = prime_factors(num)

total_sum = 0

valid_prime_found = False

for prime, power in factors.items():
 if prime < len(arr):</pre>

total_sum += power * arr[prime]

valid_prime_found = True

return total_sum if valid_prime_found else 0

if __name__ == "__main__":
 n = int(input())

arr = list(map(int, input().split()))
num = int(input())

result = calculate_prime_index_sum(arr, num)

print(result)

RESULT

4 / 5 Test Cases Passed | 80 %

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3BR"

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