

Thema der Aufgabe:

Prime Mover

Aufgabenbeschreibung:

Using the C++ language, have the function primeMover (index) take the index parameter being passed and return the **Nth** prime number.

For example, if the function call is primeMover(16) then your program should return 53 because 53 is the 16th prime number.

A naive solution to this problem is to loop starting at 2, and at each number in the loop, check to see if it is a prime, if so then you increment a counter until the counter reaches N. This is a valid solution, but it is very slow and actually takes several seconds for the function to run if the input is a large number such as 10504.

Prime arrays:

[2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47, 53, . .]

[0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, . .]

Eingabe:

- 16

Ausgabe:

- 53

Beispiel:

- Siehe Eingabe/Ausgabe!

	Erstellt	Geprüft und freigegeben	Datei:
am:	01.03.2020		0003 primeMover.odt
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