

Course > Week 1 > What a... > Proble...

Problem (3-4)

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Problem 3

1/1 point (graded)

Choose the correct statement on the prime number theorem.

- By the prime number theorem, we can calculate the exact number of prime number less than $oldsymbol{N}$ for any $oldsymbol{N}$.
- The prime number theorem says the ratio of the number of prime numbers less than N divided by N/log(N) converges to 1 as N goes infinity. \checkmark
- The prime number theorem was conjectured by Legendre in the end of the 18th. century, and finally proved by Gauss in the beginning of the 19th century.
- As a corollary of the prime number theorem, we can prove there are infinitely many Mersenne prime numbers.

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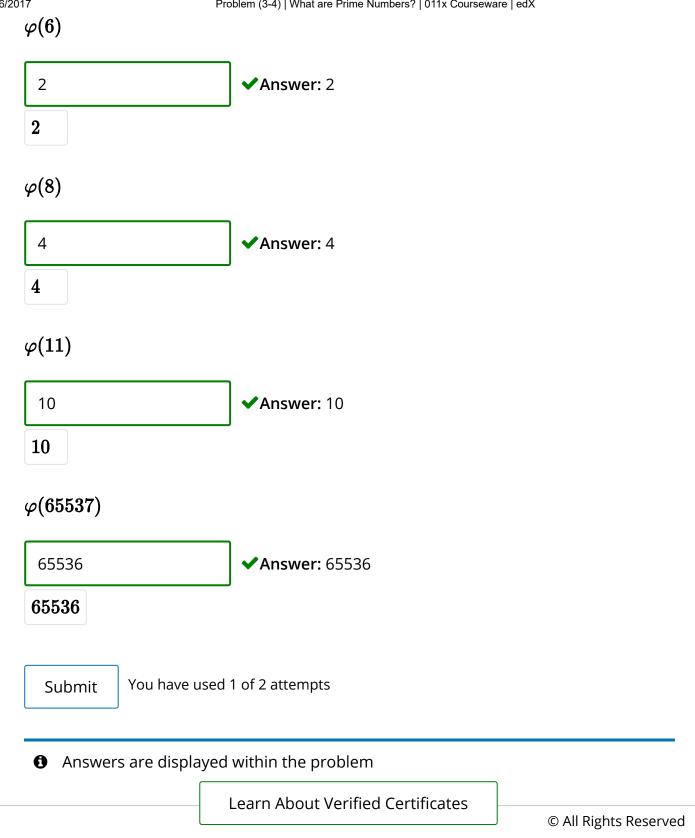
You have used 1 of 2 attempts

1 Answers are displayed within the problem

Problem 4

1/1 point (graded)

Calculate the following values of Euler's totient function $\varphi(N)$.





② English ▼

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