

IB Functions Problem 025

The number of bacteria, n , in a Petri dish after t minutes is given by $n = 800e^{0.13t}$.

- A. Find the value of n when $t = 0$.
- B. Find the rate of growth of n when $t = 15$.
- C. After k minutes, the rate of growth of n is greater than 10 000 bacteria per minute. Find the least value of k , where $k \in \mathbb{Z}$.