

Bacteria Growth

Bacteria grow by a process called binary fission. Each cell increases in size and divides into two cells. The time interval required for a bacterial cell to divide or for a population of bacterial cells to double is called the generation time. Generation times for bacterial species growing in nature may be as short as 15 minutes or as long as several days.

t Times divided	2^t	B Number of bacteria
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1. If each bacteria takes 20 minutes to divide, how long will it take for one bacterial to produce a million bacteria? _____
2. How many bacteria will there be 24 hours after the first bacterial divides? _____
3. If each bacteria weighs 3.1×10^{-9} grams, how much the total number bacteria weigh after it has divided 50 times? _____