

# A-SSE Course of Antibiotics

## Task

Susan has an ear infection. The doctor prescribes a course of antibiotics. Susan is told to take 250 mg doses of the antibiotic regularly every 12 hours for 20 days.

Susan is curious and wants to know how much of the drug will be in her body over the course of the 20 days. She does some research online and finds out that at the end of 12 hours, about 4% of the drug is still in the body.

- a. What quantity of the drug is in the body right after the first dose, the second dose, the third dose, the fourth dose?
- b. When will the total amount of the antibiotic in Susan's body be the highest? What is that amount?
- c. Answer Susan's original question: Describe how much of the drug will be in her body at various points over the course of the 20 days.



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