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| **Topic 2: Functions** | **Solving Exponential Equations** | | |
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| 1. Curtis takes medication. After hours, the concentration of medication left in his bloodstream is given by , where is in milligrams per liter.    1. Write down    2. Find the concentration of medication in his bloodstream after an hour and half    3. At 2:00pm, when there is no medication in his bloodstream, he takes his first pill. He can take his second pill when the medication concentration reaches 0.45 mg/L. What time can Curtis take his second pill? | | | (2 marks)  (2 marks)  (5 marks) |
| Mark scheme:  mg/L   1. hrs He can take his next pill at 12:00am | | (A1)  (M1)  (A1)  (M1) (M1) (A1) (A1) (A1) | |