

1. In a research experiment, a population of fruit flies is increasing in accordance with the exponential growth model. After 2 days, there are 100 flies, and after 4 days, there are 300 flies. How many flies will there be after 5 days?

2. A sample contains 1 gram of radium. The half-life of radium is 1620 years. How much radium will remain after 1000 years?