

- 2** The number of people, n , living in a small town is changing over time. In an attempt to predict the future growth of the town, a researcher uses the following model for n in terms of t , where t is the time in years from the start of the research.

$$n = 12\,500 + \frac{5000}{t}, \text{ for } t \geq 1$$

Find the rate of change of n when $t = 5$.

[4]