

Rabbits A rabbit population is introduced to a new area. The graph shows the growth of the rabbit population. In Exercises 7–12, use the graph. (*See Example 3.*)

- 7. What does the population for year 0 represent?
- 8. At what rate is the rabbit population increasing?
- **9.** Suppose the population growth continued for another year. Predict the number of rabbits in year 8.
- **10.** Suppose the population growth continued for another 3 years. Predict the number of rabbits in year 10.
- 11. When does the rabbit population exceed 3000?
- 12. When does the rabbit population exceed 6000?



- **13. Population Growth** A rabbit population grows exponentially over a 10-year period. The population in year 3 is 150. The population in year 4 is 204. Predict the number of rabbits in year 10. (*See Example 3.*)
- **14. Disease Outbreak** The outbreak of a disease causes a rabbit population to decrease exponentially over a 6-year period. The population in year 2 is 1200. The population in year 3 is 960. Predict the number of rabbits in year 6. (*See Example 4.*)

