163. **Population** The populations (in thousands) of Arizona A and Minnesota M from 1995 to 2001 can be modeled by

$$A = 142.9t + 3729, \quad 5 \le t \le 11$$

$$M = 52.1t + 4400, \quad 5 \le t \le 11$$

where t represents the year, with $t = 5$ corresponding to 1995. (Source: U.S. Census Bureau)

(a) Use a graphing utility to graph each model in the same viewing window over the appropriate domain. Approximate the point of intersection.

(b) Find the point of intersection algebraically. What does the point of intersection represent?

(c) Use the models to estimate the population of each state in 2006.

164. **Transportation** The total number y of electric-powered vehicles in the United States from 1992 through 2001 can be approximated by the model

$$y = 75.76t^2 + 912, \quad 2 \le t \le 11$$

where t represents the year, with $t = 2$ corresponding to 1992. (Source: Energy Information Administration)

(a) Determine algebraically when the number of electric-powered vehicles reached 7000.

(b) Verify your answer in part (a) by creating a table of values for the model.

(c) Use a graphing utility to graph the model.