

## For Discussion

Use each age in dog years from the table and the given polynomial equation to approximate the age of a dog in human years. Round answers to the nearest tenth. Then compare your approximations from the equation with the actual ages given in the table.

For example, for a 1-year-old dog,

$$y = -0.0545x^2 + 5.047x + 11.78$$

$$y = -0.0545(1)^2 + 5.047(1) + 11.78 \quad \text{Let } x = 1.$$

$$y = 16.8. \quad \text{Nearest tenth}$$

The approximation from the equation, 16.8 human years, is greater than the actual value, 16, from the table.

Age in Dog Years, $x$	Age in Human Years, $y$
1	16
3	
5	
7	
9	
11	
15	



**DOTTY**

Source: American Animal Hospital Association.