23. CHALLENGE The table shows the estimated populations of mallard ducks and all ducks in North America for several years during the period 1975–2000.

Year	1975	1980	1985	1990	1995	2000
Mallards (thousands)	7727	7707	4961	5452	8269	9470
All ducks (thousands)	37,790	36,220	25,640	25,080	35,870	41,840

a. Make two scatter plots where x is the number of years since 1975 and y is the number of mallards (in thousands) for one scatter plot, while y is the number of ducks (in thousands) for the other scatter plot. *Describe* the correlation of the data in each scatter plot.

b. Can you use the mallard duck population to predict the total duck population? *Explain*.

MIXED REVIEW FOR TAKS

24. ⬥ **TAKS PRACTICE** Simplify the expression $3(-x + 1) - 2(2 + x)$. *TAKS Obj. 2*

Ⓐ $-5x - 5$ Ⓑ $-5x - 1$ Ⓒ $-x + 7$ Ⓓ $x + 1$

25. ⬥ **TAKS PRACTICE** A watch loses 2 minutes every 12 hours. After how many days will the watch have lost an hour? *TAKS Obj. 9*

Ⓕ 15 Ⓖ 30 Ⓗ 60 Ⓙ 90

QUIZ *for Lessons 5.5–5.7*

1. PARALLEL LINES Write an equation of the line that passes through $(-6, 8)$ and is parallel to the line $y = 3x - 15$. *(p. 319)*

PERPENDICULAR LINES Write an equation of the line that passes through the given point and is perpendicular to the given line. *(p. 319)*

2. $(5, 5), y = -x + 2$ **3.** $(10, -3), y = 2x + 24$ **4.** $(2, 3), x + 2y = -7$

5. CASSETTE TAPES The table shows the number of audio cassette tapes shipped for several years during the period 1994–2002. *(pp. 325, 335)*

Year	1994	1996	1998	2000	2002
Tapes shipped (millions)	345	225	159	76	31

a. Write an equation that models the number of tapes shipped (in millions) as a function of the number of years since 1994.

b. At about what rate did the number of tapes shipped change over time?

c. Approximate the year in which 125 million tapes were shipped.

d. Find the zero of the function from part (a). *Explain* what the zero means in this situation.