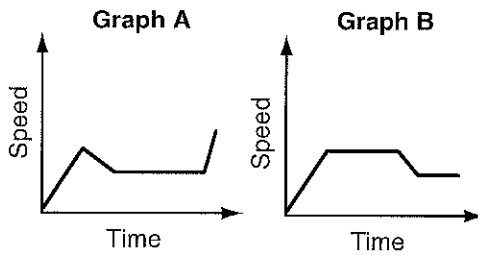
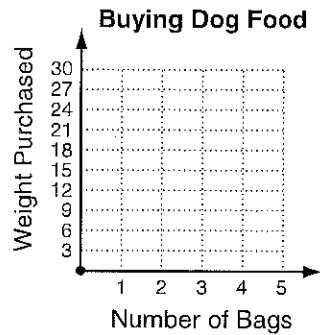


CHAPTER 4 **Chapter Test**
Form B

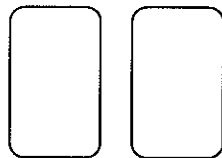
1. A runner in a race ran quickly for the first few minutes, slowed down some and ran a steady pace for most of the race, and then ran as fast as he could at the very end. Choose the graph that best represents this situation.



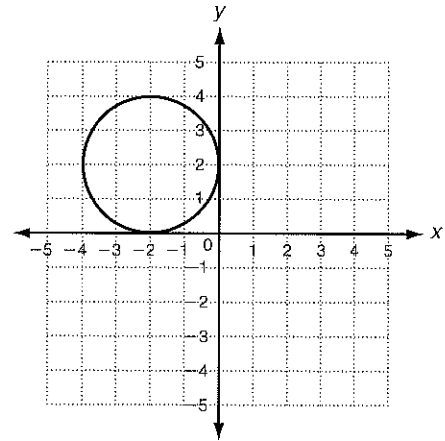
2. Dog food is sold in 7 pound bags. Sketch a graph to show the weight of dog food purchased by a customer who buys 0, 1, 2, 3, or 4 bags. Tell whether the graph is continuous or discrete.



3. Express the relation $\{(-2, 3), (2, 4), (-3, 4)\}$ as a mapping diagram.



4. Give the range of the relation.



5. Give the domain of the relation.

x	-1	-0.5	0	0.5
y	2	2	5	6

6. Tell whether the relation is a function. Explain.

$\{(4, -1), (3, -2), (2, 1), (1, -2)\}$

7. Determine a relationship between the x - and y -values. Write an equation.

x	1	2	3	4	5
y	2	5	8	11	14

CHAPTER 4 **Chapter Test**
Form B continued

Write a rule in function notation for each situation.

8. A car can travel 32.5 miles per gallon of gasoline.

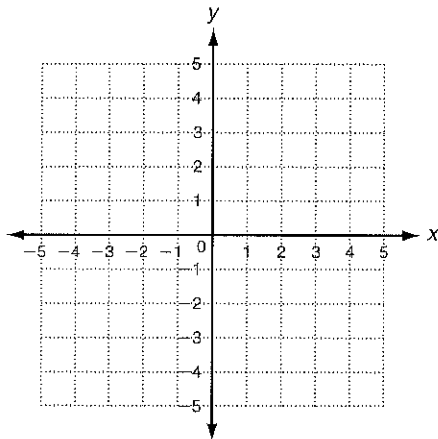
9. A lawyer will be paid $\frac{1}{3}$ of the amount awarded in a lawsuit.

10. Evaluate the function $f(x) = (2x)^2 - 1$ when $x = 2$ and when $x = -1$.

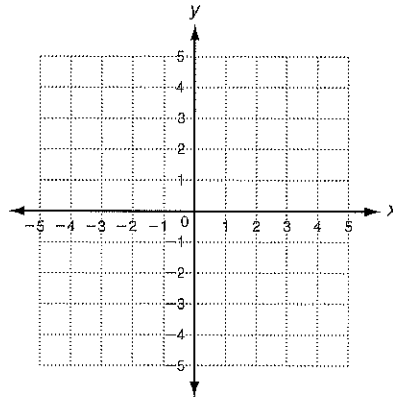
11. Identify the independent and dependent variables.
A certain movie earns \$1200 for each screen it is shown on.

Graph each function.

12. $y = |x - 1|$; D: $\{-3, -1, 1, 3\}$



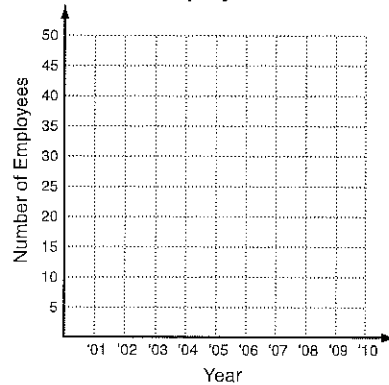
13. $y = x^2 - 4$



14. The table shows the number of employees in a company over five years. Draw a scatter plot and trend line.

Year	'01	'02	'03	'04	'05
Employees	15	20	23	30	34

Company Growth



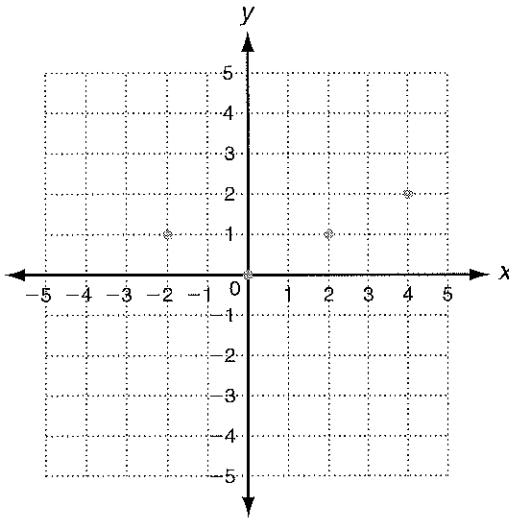
Based on the trend line, predict how many employees the company will have in 2008.

15. Find the next three terms of the arithmetic sequence 8, 14, 20, 26, ...

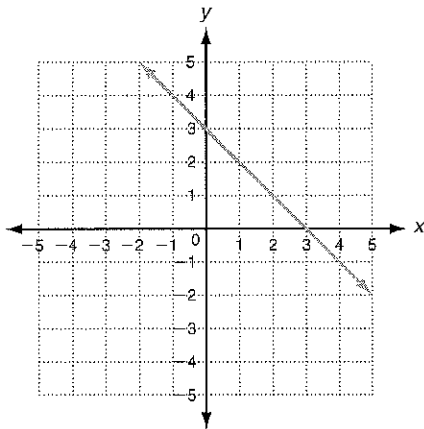
16. What is the 57th term of the arithmetic sequence 11, 8, 5, 2, ...?

Answer Key continued

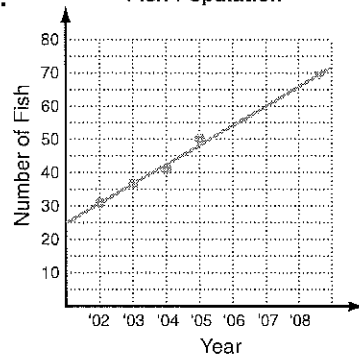
4. $-1 \leq x \leq 4$
5. R: {2, 5, 6}
6. yes; each domain value is paired with only one range value.
7. $y = x - 2$
8. $f(d) = 8d$
9. $f(r) = 2 + 0.25r$
10. -1, 23
11. I: number of prints; D: total cost
- 12.



13.



14. Fish Population ; 60



15. 30, 37, 44

16. 190

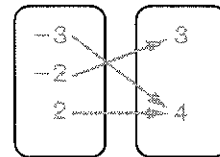
Chapter Test Form B

1. Graph A

2. Buying Dog Food ; discrete



3.



4. $0 \leq y \leq 4$

5. D: $\{-1, -0.5, 0, 0.5\}$

6. yes; each domain value is paired with only one range value.

7. $y = 3x - 1$

8. $f(g) = 32.5g$

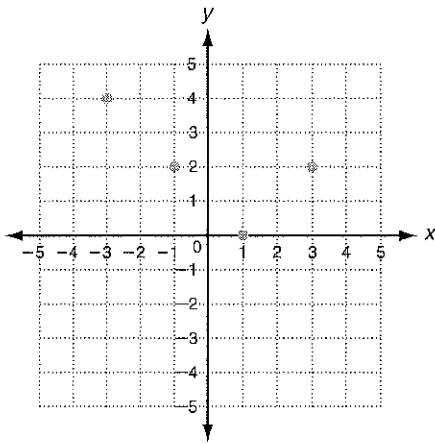
9. $f(a) = \frac{1}{3}a$

10. 15, 3

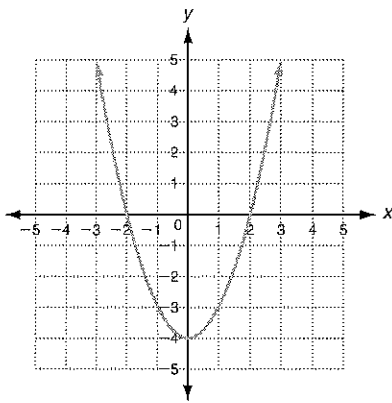
11. I: number of screens; D: total earnings

Answer Key continued

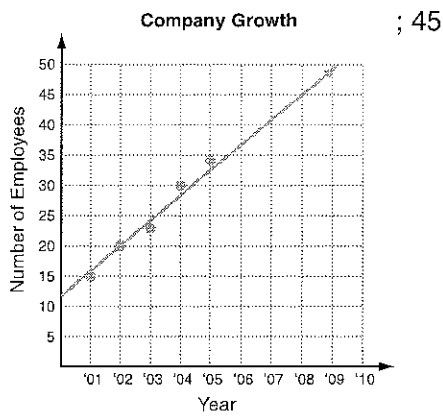
12.



13.



14.



15. 32, 38, 44

16. -157

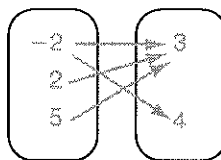
Chapter Test Form C

1. Graph B

2.



3.



4. $-2 \leq y \leq 4$

5. D: $\{-2, -1, 0, 3.5, 4.2\}$

6. no; -3 is matched with two different range values.

7. $y = x^2 + 1$

8. $f(m) = 21 + 5.5m$

9. $f(p) = (0.07)p$

10. 2.5, 4

11. I: number of people on list; D: number of facts

12.

