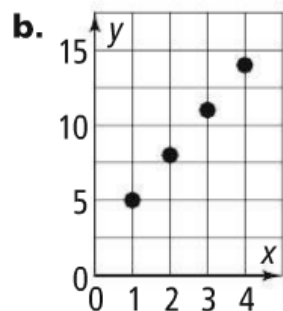


- 13.** Add 8 to the previous term; 35, 43.
- 14.** Multiply the previous term by  $-2$ ; 48,  $-96$ .
- 15.** not an arithmetic sequence
- 16.** arithmetic sequence; 9
- 17.**  $A(1) = 9$ ;  $A(n) = A(n - 1) - 2$ ;  
 $A(n) = 9 - 2(n - 1)$
- 18.**  $-6$ ; the pattern is "add  $-6$  to the previous term."
- 19.** Error was using  $(n - 1) = 10$  rather than  $(n - 1) = 9$ . Evaluate  $A(n) = 4 + (n - 1)8$  for  $n = 10$ ;  $A(10) = 4 + (10 - 1)8 = 76$ .
- 22.** Yes; the common difference is  $-4$ ;  
 $A(n) = -3 + (n - 1)(-4)$ ,  
 $A(1) = -3$ ;  $A(n) = A(n - 1) - 4$
- 24.** No; there is no common difference.
- 26.** Yes; the common difference is  $-0.8$ ;  
 $A(n) = 0.2 + (n - 1)(-0.8)$ ,  
 $A(1) = 0.2$ ;  $A(n) = A(n - 1) - 0.8$
- 28.** 10, 11.2, 12.4;  $A(n) = 8.8 + (n - 1)(1.2)$
- 30.**  $-2$ ,  $-4$ ,  $-6$ ;  $A(n) = (n - 1)(-2)$
- 32.** Answers may vary. Sample:  
 $A(n) = 15 + 2(n - 1)$
- 34.** 350, 325, 300, 275, 250, 225; you owe \$225 at the end of six weeks.
- 36. a.** 1, 6, 15, 20, 15, 6, 1  
**b.** 1, 2, 4, 8, 16; 64

38. a. 11, 14



c. The points all lie on a line.