Lesson 16-1

1. a.

Hour	Miles
0	0
1	60
2	120
3	180
4	240
5	300

b.
$$d = 60t$$

c.
$$t = 9$$
 hours; $540 \div 60 = 9$

d. 720 miles;
$$d = 60(12) = 720$$

2. a.
$$d = 5(60) = 300$$
 ft

b.
$$d = 3(60) = 180 \text{ ft}$$

c. Sen:
$$m = 108$$
 minutes,
Lady: $m = 180$ minutes

3. a. m = 72; the minutes needed to crawl 540 feet

b. d = 4050 ft; the distance traveled after 540 minutes

4. a.

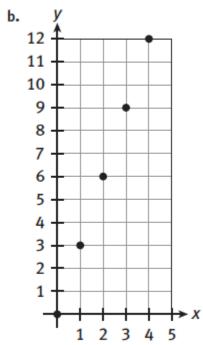
Year	Input,	y + 3	Output,
	У		S
0	0	0 + 3	3
1	1	1 + 3	4
2	2	2 + 3	5
3	3	3 + 3	6
4	4	4 + 3	7
5	5	5 + 3	8

b.
$$s = y + 3$$

Lesson 16-2

5. a.

а.	Week	0	1	2	3	4
	Painting	0	3	6	9	12



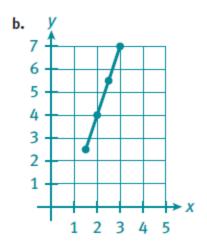
c.
$$y = 3x$$

d. *x* is the independent variable and *y* is the dependent variable

e. 8

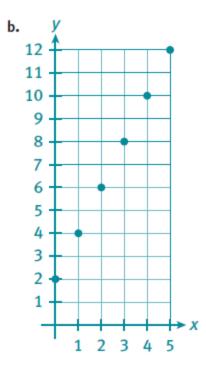
6. a.

Input,	3x - 2	Output,
X		y
2	3(2) - 2	4
3	3(3) - 2	7
1.5	3(1.5) - 2	2.5
2.5	3(2.5) - 2	5.5



7. After 4 weeks, Naeem will only have 7 paintings total, but Niall will have painted a total of 12 paintings because she paints more. 8. a.

Input,	2x + 2	Output,
0	2(0) + 2	2
1	2(1) + 2	4
2	2(2) + 2	6
3	2(3) + 2	8
4	2(4) + 2	10
5	2(5) + 2	12



c.
$$y = 2x + 2$$

d. 22

e. Week
$$13$$
; $2(13) + 2 = 28$

- **9.** Answers will vary. Both go up at a constant rate, but 5b starts at (0,0) and 8b starts at (0,2)
- **10.** Answers will vary. As x increases by 1, y increases by 5. The equation is y = 5x.