1. yes; ends in 0 2. no; does not end in 0, 2, 4, 6, or 8 3. yes; ends in 5 4. yes; ends in 0 5. yes; ends in 0 6. no; does not end in 0, 2, 4, 6, or 8 7. yes; ends in 8 8. no: does not end in 0 9. no; sum of digits is not divisible by 9 10. yes; sum of digits is divisible by 3 11. yes; sum of digits is divisible by 9 12. yes; sum of digits is divisible by 3 13. no; sum of digits is not divisible by 9 14. yes; sum of digits is divisible by 9 15. yes; sum of digits is divisible by 3 16. yes; sum of digits is divisible by 3 17. 1, 2, 4 18.1,2,4,8 18. 1, 23 20. 1, 3, 5, 15, 25, 75 21. 1 row of 32; 2 rows of 16; 4 rows of 8 22. 3; 1 + 1 + 1 = 3; 3 is divisible by 3. 23. none 24. 2, 3, 9; the number ends in 8; 2 + 8 + 8 = 18; 18 is divisible by 3 and 9. 25. 2, 3, 5, 10; the number ends in 0; 3 + 0 + 0 = 3; 3 is divisible by 3. 26. 2; the number ends in 2. Pre-Algebra Chapter 4 Answers for Lesson 4-1, pp. 182-183 Exercises (cont.)

- 27. 3, 9; 8 + 9 + 1 = 18; 18 is divisible by 3 and 9.
- 28. 5; the number ends in 5.
- 29. 2; the number ends in 4.
- 30. a. 66 and 4,710
 - b. 66 and 4,710
 - c. An integer is divisible by 6 if it is an even number and the sum of its digits is divisible by 3.

31. 1 · 25, 5 • 5	32. 1 · 28, 2 · 14, 4 · 7
33. 1 · 32,2 • 16, 4 • 8	34. 1 · 35, 5 · 7
35. 1-37	36. 1 · 50, 2 · 25, 5 • 10
37. 1·53	
38. 1 · 72, 2 · 36, 3 · 24, 4	· 18, 6 · 12, 8 · 9
39. 7	40. 8
41. 2	42. 5

- 43. Explanations may vary. Sample: Yes; a number divisible by 9 has 3 as a factor.
- 44. a. 2 plates of 21 cookies, 3 plates of 14 cookies, 6 plates of 7 cookies
 - b. 2 plates of 28 cookies, 4 plates of 14 cookies,7 plates of 8 cookies, 8 plates of 7 cookies
 - c. 2 plates of 30 cookies, 3 plates of 20 cookies, 4 plates of 15 cookies, 5 plates of 12 cookies, 6 plates of 10 cookies
 - d. 2 plates of 72 cookies, 3 plates of 48 cookies, 4 plates of 36 cookies, 6 plates of 24 cookies, 8 plates of 18 cookies, 9 plates of 16 cookies, 12 plates of 12 cookies, 16 plates of 9 cookies, 18 plates of 8 cookies

a.	Number	Last two digits	Are last two digits divisible by 4?	Is the number divisible by 4?
Ē	136	36	Yes	Yes
	1,268	68	Yes	Yes
- [314	14	No	No
	1,078	78	No	No
	696	96	Yes	Yes

- b. An integer is divisible by 4 if its last 2 digits are divisible by 4.
- 46. Answers may vary. Sample: 25, 35, 45
- 47. Answers may vary. Sample: 21, 24, 33
- 48. Answers may vary. Sample: 30, 60, 120
- 49. Answers may vary. Sample: *a* + 1 is not divisible by 2. Dividing by 2 will leave a remainder of 1.