Practice C

For use with pages 3-9

Sketch the next figure in the pattern.

1.





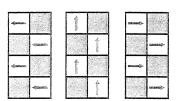
3







4.



Describe a pattern in the sequence of numbers. Predict the next number.

- **5.** 123, 133, 113, 123, . . .
- **7.** 22, 20, 17, 13, . . .
- **9.** 8, 15, 29, 57, . . .
- 11. $2, -4, 8, -16, \ldots$

- **6.** 5, 8, 13, 20, 29, . . .
- **8.** 0.49, 0.64, 0.81, 1, . . .
- **10.** -7, -4, -1, 2, ...
- **12.** $\frac{3}{7}, \frac{6}{5}, \frac{9}{3}, \frac{12}{1}, \dots$

in Exercises 13 and 14, the number of bacteria after *n* hours is given in the table. Predict the number of bacteria after 8 hours.

13.	n (hours)	1	2	3	4	5
	number of bacteria	3	6	12	24	48

14.	n (hours)	1	2	3	4	5		
	number of bacteria	640	320	160 -	80	40		

In Exercises 15–17, show the conjecture is false by finding a counterexample.

- 15. The difference of two whole numbers is a whole number.
- **16.** The absolute value of the sum of two numbers is the sum of their absolute values, meaning |a + b| = |a| + |b|.
- 17. If $m \neq -1$, then $\frac{m}{m-1} > 1$.