Name $\qquad$ Date $\qquad$

## LESSON 2.1

Practice C
For use with pages 72-78

## Sketch the next figure in the pattern.



Describe a pattern in the numbers. Write the next number in the pattern.
3. $-5,7,-9,11,-13, \ldots$
4. $22,21,19,16,12, \ldots$
5. $5.1,-6.2,7.3,-8.4$
6. $100,101,98,103,96,105, \ldots$
7. $\frac{10}{11}, \frac{9}{10}, \frac{8}{9}, \frac{7}{8}, \ldots$
8. $-\frac{1}{2}, \frac{3}{3},-\frac{5}{4} \frac{7}{5}, \ldots$
9. $-1,1,5,13,29, \ldots$
10. $1.1,3.3,13.2,66,396, \ldots$

Describe a pattern in the numbers and write the next three numbers in the pattern. Then describe a different pattern in the numbers and write the next three numbers in the pattern.
11. $1,2,4, \ldots$
12. $3,6,12, \ldots$
13. $1,4,8, \ldots$

Show the conjecture is false by finding a counterexample.
16. The sum of the squares of any two consecutive squared natural numbers is an even number.
17. The sum of the squares of any two squared natural numbers is an odd number.

For the given table, write a function rule relating $x$ and $y$.
18.

| X | 1 | 2 | 3 | 4 |
| :--- | :--- | :--- | :--- | :--- |
| Y | -3 | -4 | -5 | -6 |

19. 

| X | 1 | 2 | 3 | 4 |
| :--- | :--- | :--- | :--- | :--- |
| Y | 4 | 9 | 16 | 25 |

