$\qquad$
$\qquad$ Date $\qquad$

## 1-1 <br> Practice <br> Patterns and Expressions

Form G

Describe each pattern using words. Draw the next figure in each pattern.
1.

2.

3.


Copy and complete each table. Include a process column.
4.

5.

6.

| Input | Output |
| :---: | :---: |
| 1 | 0.5 |
| 2 | 1.0 |
| 3 | 1.5 |
| 4 | 2.0 |
| 5 |  |
| 6 |  |
| $\vdots$ |  |
| $n$ |  |

7. Describe the pattern using words.

$\qquad$ Class $\qquad$ Date $\qquad$
Practice (continued)
Form G
Patterns and Expressions

A gardener plants a flower garden between his house and a brick pathway parallel to the house. The table at the right shows the area of the garden, in square feet, depending on the width of the garden, in feet.
8. What is the area of the garden if the width is 8 feet?

| Width | Area |
| :---: | :---: |
| 1 | 3.5 |
| 2 | 7 |
| 3 | 10.5 |
| 4 | 14 |

9. What is the area of the garden if the width is 15 feet?

## Identify a pattern and find the next three numbers in the pattern.

10. $-5,-10,-20,-40, \ldots$
11. $3,1,-1,-3, \ldots$
12. $\frac{2}{3}, \frac{3}{4}, \frac{4}{5}, \frac{5}{6}, \ldots$

The graph shows the cost depending on the number of DVDs that you purchase.
16. What is the cost of purchasing 5 DVDs?
17. What is the cost of purchasing 10 DVDs?
18. What is the cost of purchasing $n$ DVDs?
11. $5,8,11,14, \ldots$
13. $1,3,6,10,15, \ldots$
15. $10,9,6,1,-6, \ldots$

Keesha earns $\$ 320$ a week working in a clothing store. As a bonus, her employer pays her $\$ 15$ more than she earned the previous week, so that at the end of the second week she earns $\$ 335$, and after 3 weeks, she earns $\$ 350$.
19. How much will Keesha earn at the end of the fifth week?
20. How much will Keesha earn at the end of the tenth week?

