

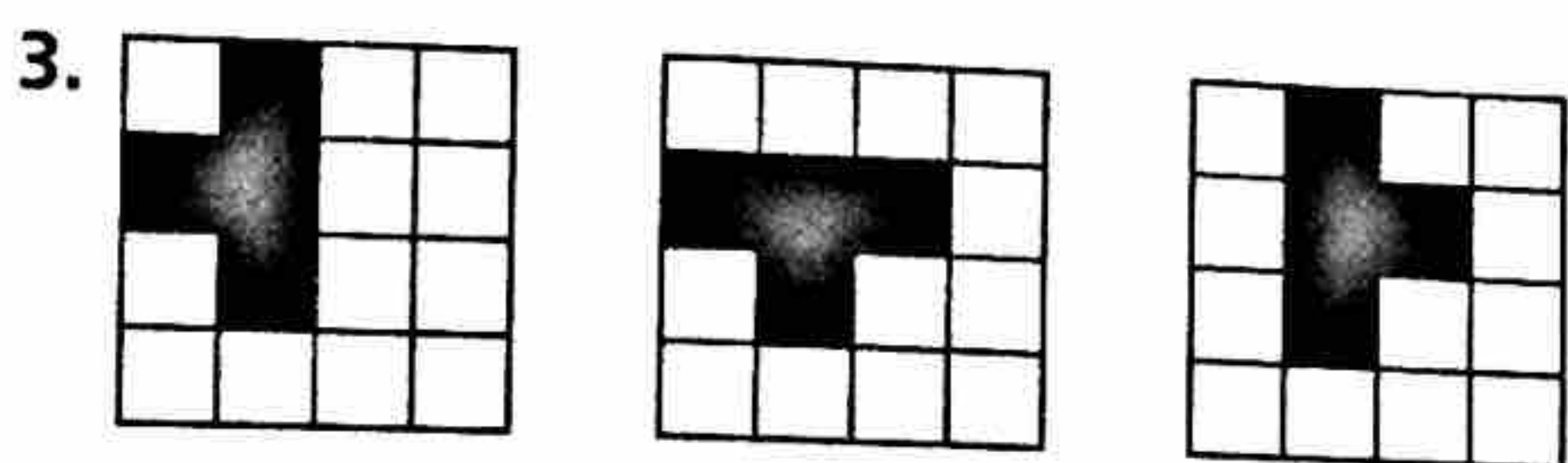
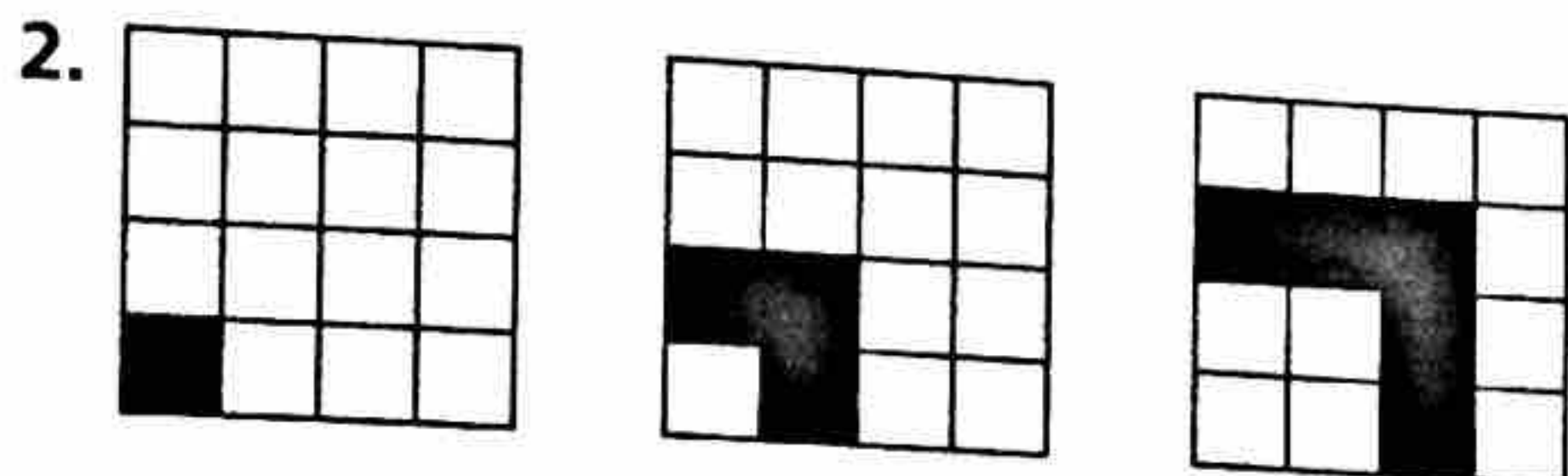
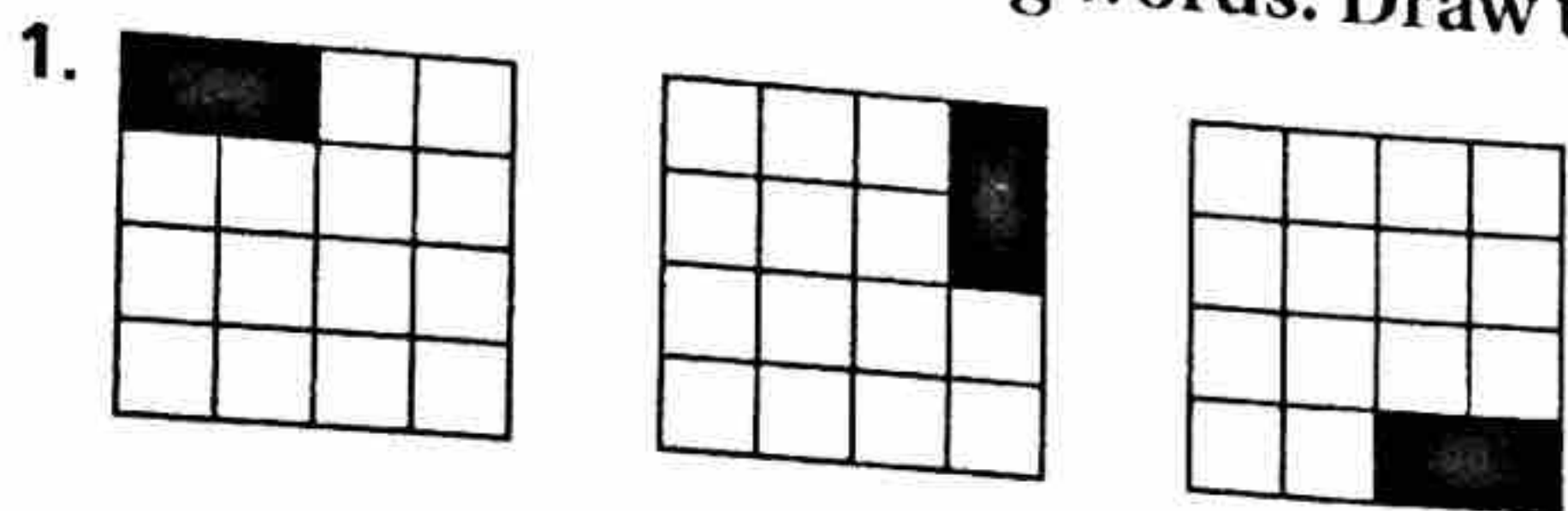
1-1

Practice

Form G

Patterns and Expressions

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



Copy and complete each table. Include a process column.

4.

Input	Output
1	4
2	9
3	14
4	19
5	
6	
:	
n	

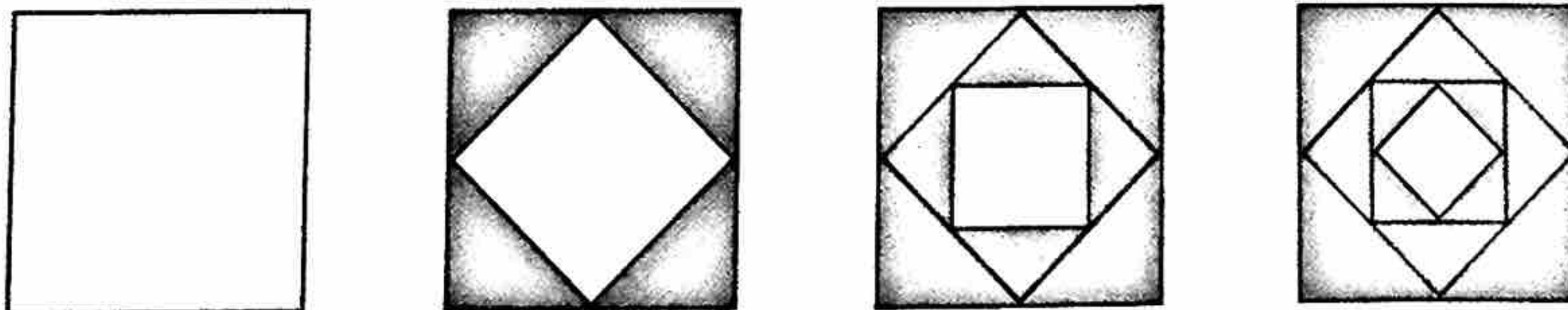
5.

Input	Output
1	-2
2	-4
3	-6
4	-8
5	
6	
:	
n	

6.

Input	Output
1	0.5
2	1.0
3	1.5
4	2.0
5	
6	
:	
n	

7. Describe the pattern using words.



1-1

Practice (continued)
 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.

Width	Area
1	3.5
2	7
3	10.5
4	14

8. What is the area of the garden if the width is 8 feet?

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. $-5, -10, -20, -40, \dots$

11. $5, 8, 11, 14, \dots$

12. $3, 1, -1, -3, \dots$

13. $1, 3, 6, 10, 15, \dots$

14. $\frac{2}{3}, \frac{3}{4}, \frac{4}{5}, \frac{5}{6}, \dots$

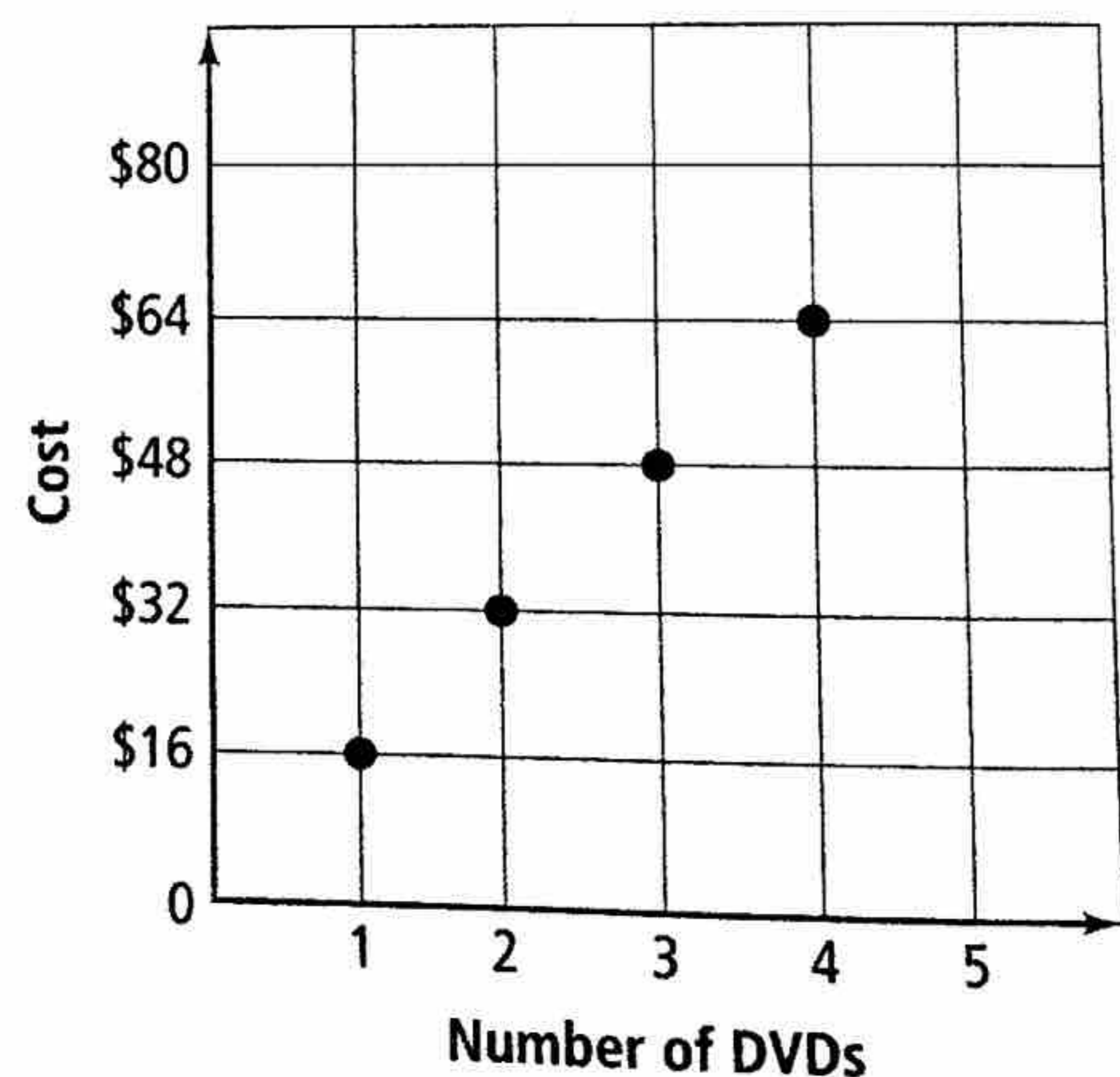
15. $10, 9, 6, 1, -6, \dots$

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?



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?

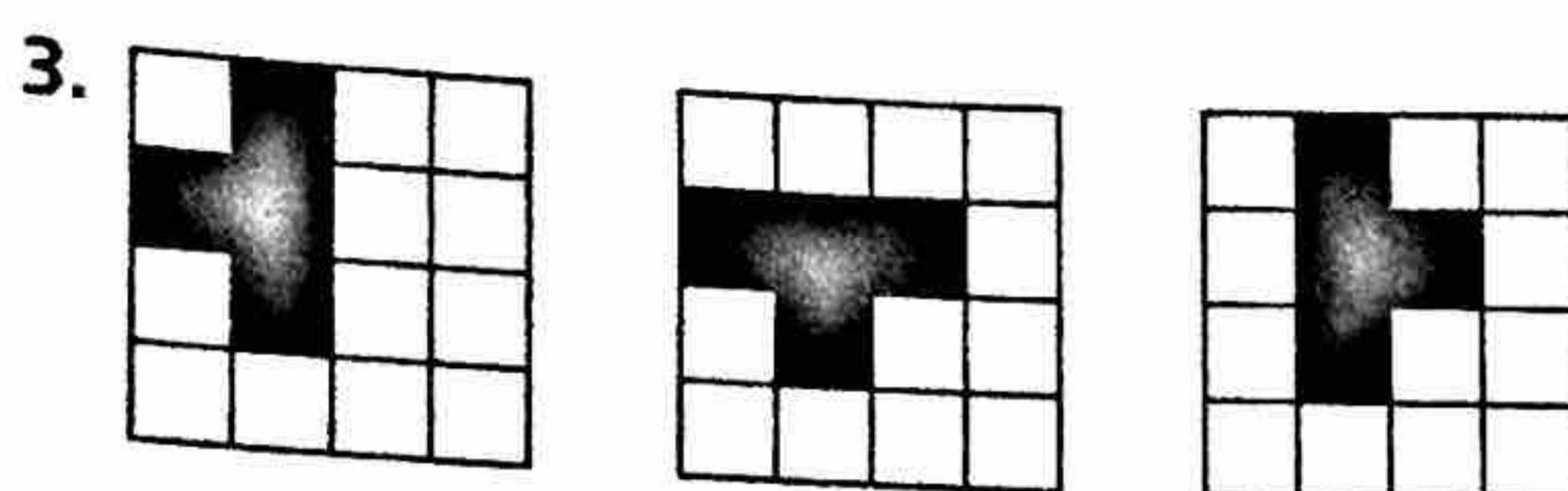
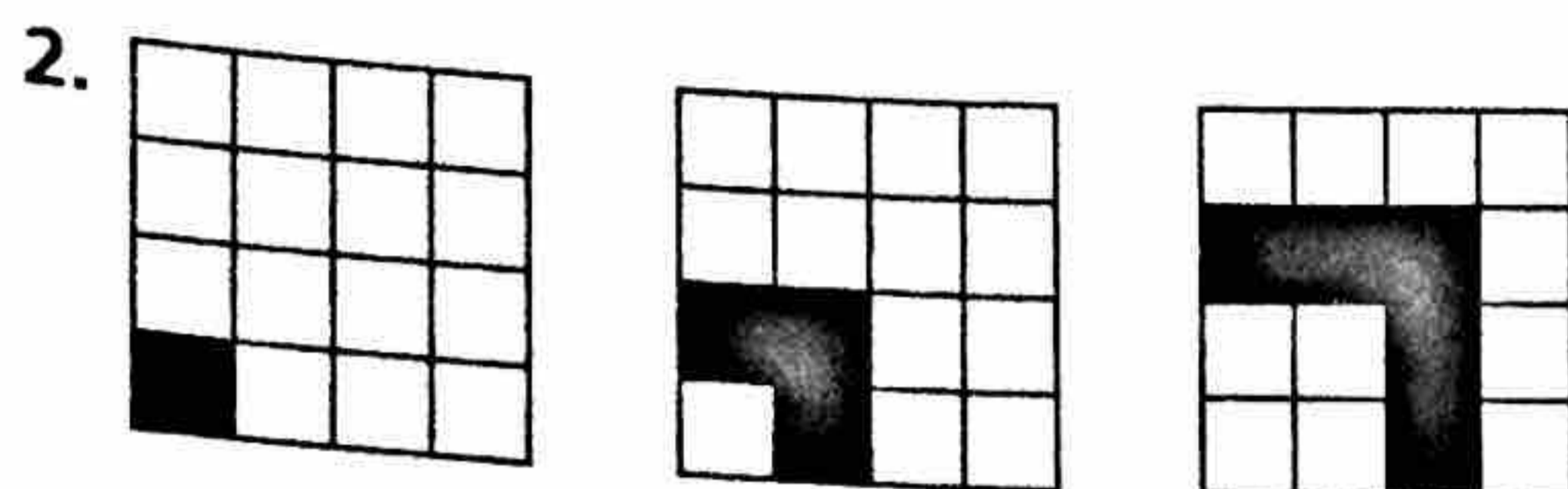
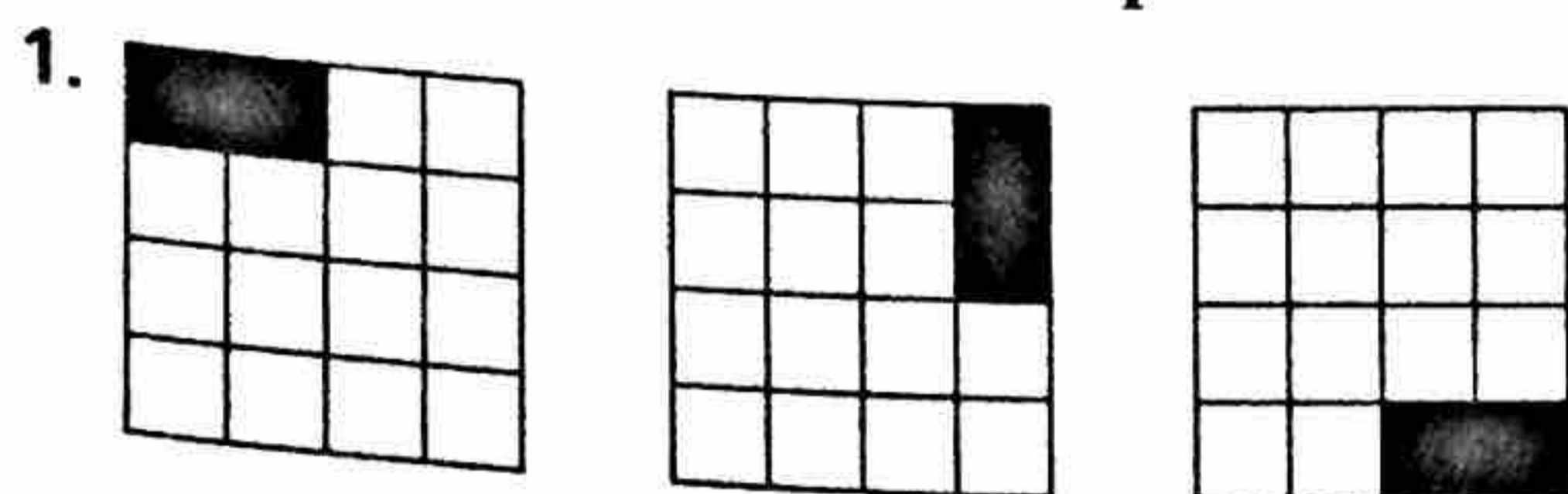
1-1

Práctica

Modelo G

Patrones y expresiones

Describe cada patrón usando palabras. Haz la figura que sigue en cada patrón.



Copia y completa cada tabla. Agrega una columna de procesos.

4.

Entrada	Salida
1	4
2	9
3	14
4	19
5	
6	
⋮	
n	

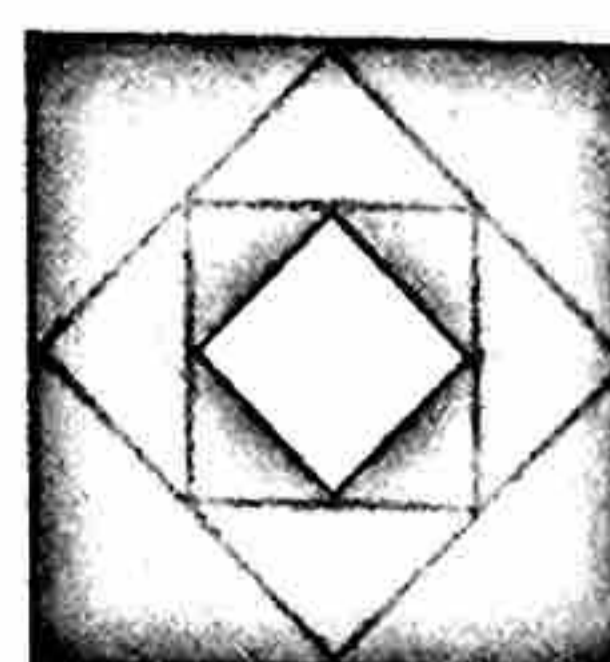
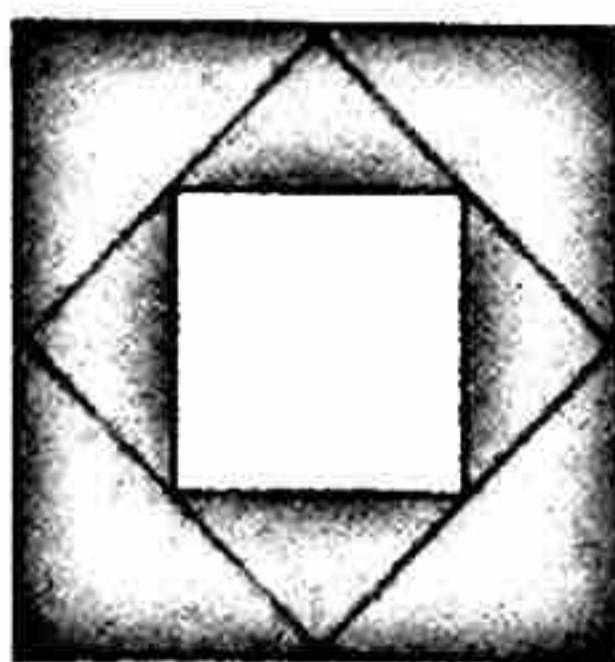
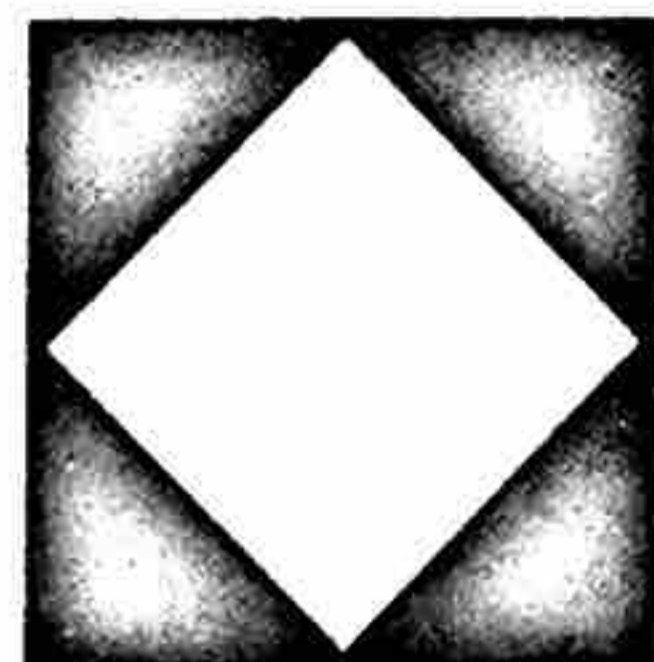
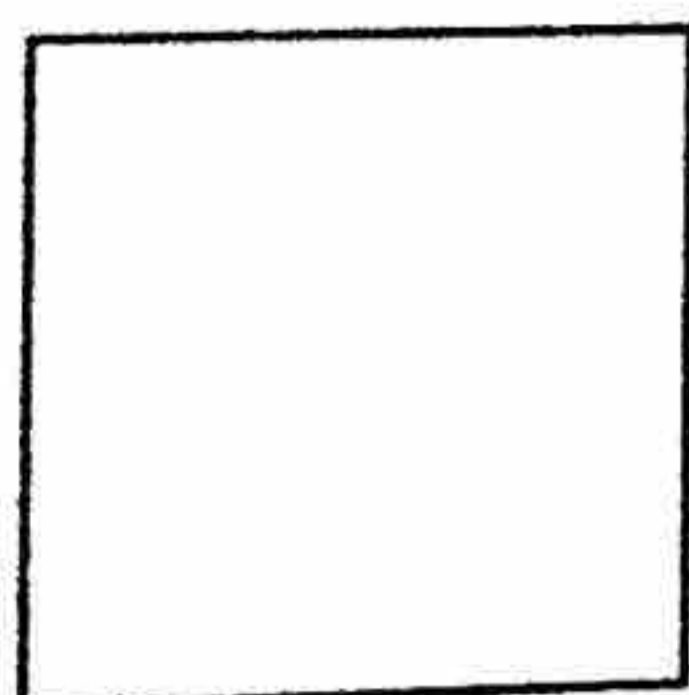
5.

Entrada	Salida
1	-2
2	-4
3	-6
4	-8
5	
6	
⋮	
n	

6.

Entrada	Salida
1	0.5
2	1.0
3	1.5
4	2.0
5	
6	
⋮	
n	

7. Describe el patrón usando palabras.



1-1

Práctica (continuación)

Patrones y expresiones

Modelo G

Un jardinero planta un jardín de flores entre su casa y un camino de ladrillos que es paralelo a su casa. En la tabla de la derecha se muestra el área del jardín, en pies cuadrados, según el ancho del jardín, en pies.

Ancho	Área
1	3.5
2	7
3	10.5
4	14

8. ¿Cuál es el área del jardín si el ancho es de 8 pies?

9. ¿Cuál es el área del jardín si el ancho es de 15 pies?

Identifica un patrón y halla los siguientes tres números del patrón.

10. $-5, -10, -20, -40, \dots$

11. $5, 8, 11, 14, \dots$

12. $3, 1, -1, -3, \dots$

13. $1, 3, 6, 10, 15, \dots$

14. $\frac{2}{3}, \frac{3}{4}, \frac{4}{5}, \frac{5}{6}, \dots$

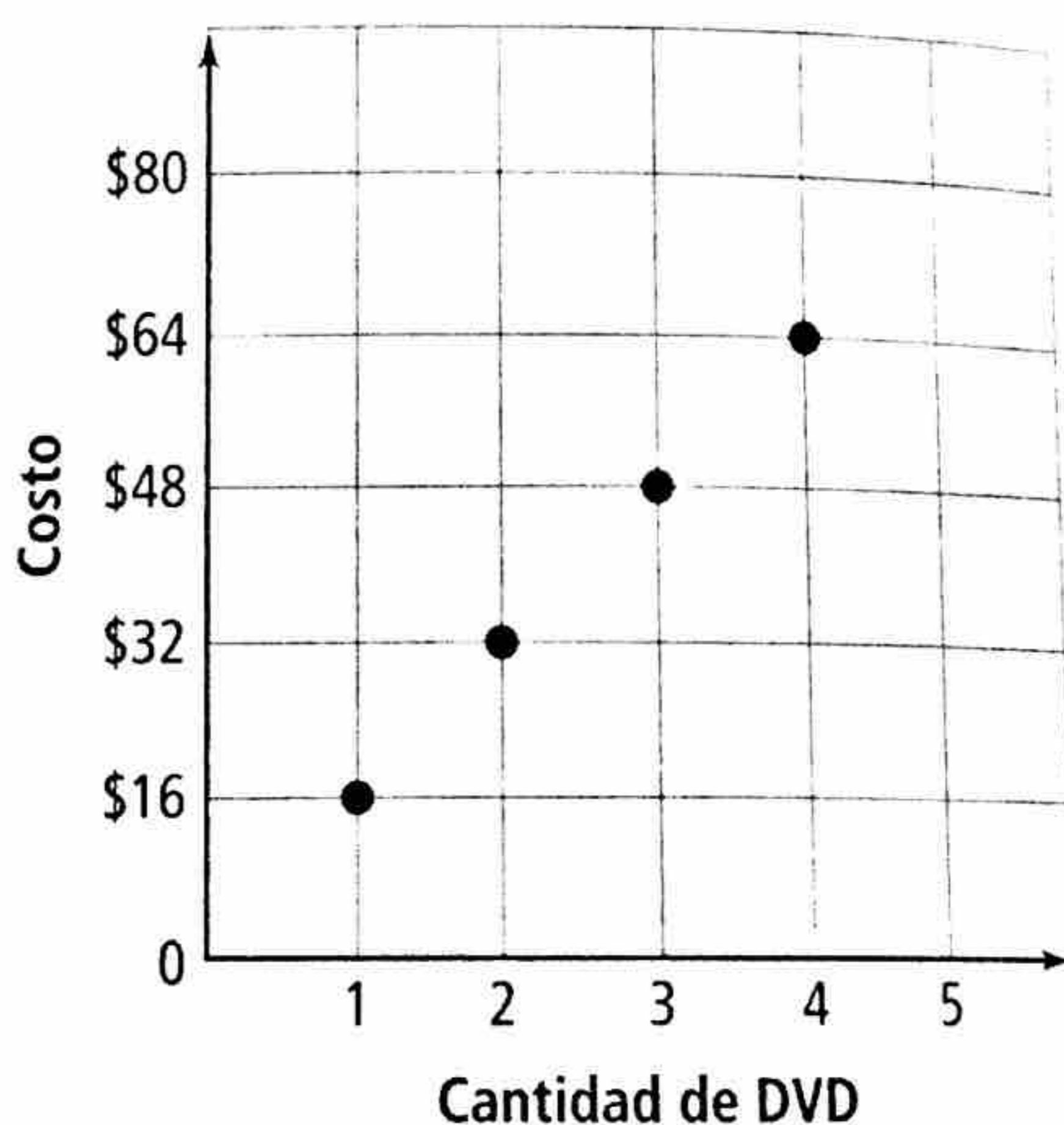
15. $10, 9, 6, 1, -6, \dots$

En la gráfica se muestra el costo según la cantidad de DVD comprados.

16. ¿Cuál es el costo de comprar 5 DVD?

17. ¿Cuál es el costo de comprar 10 DVD?

18. ¿Cuál es el costo de comprar n DVD?

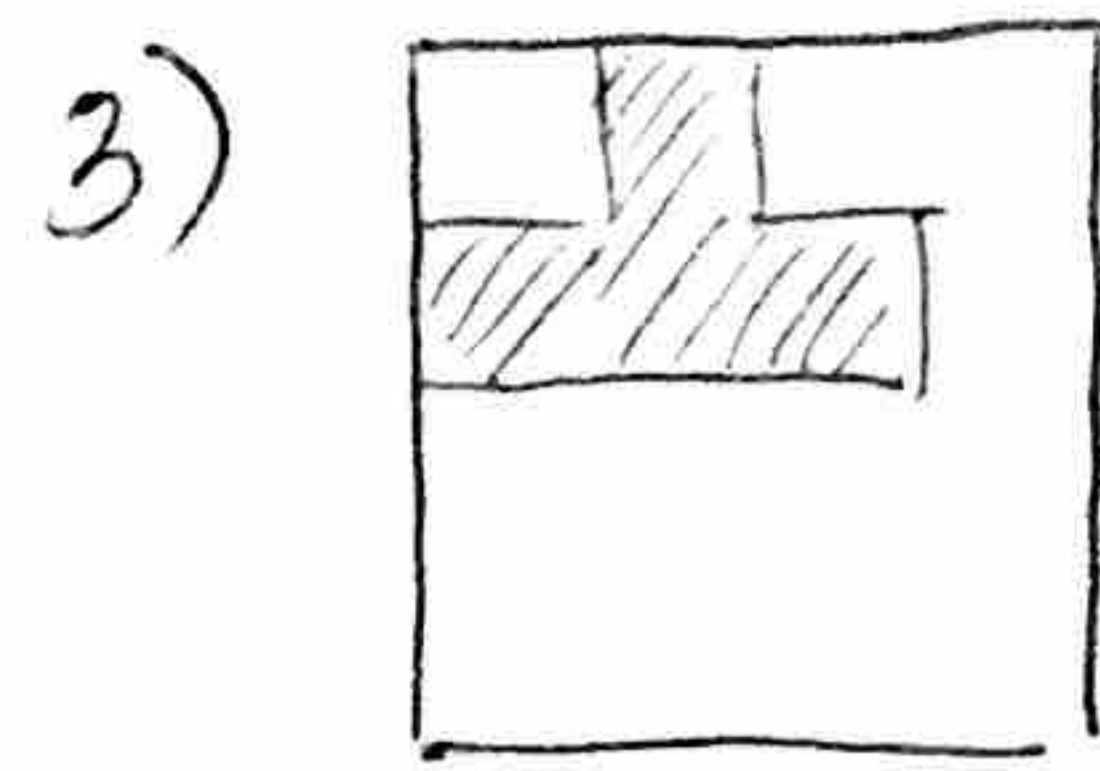
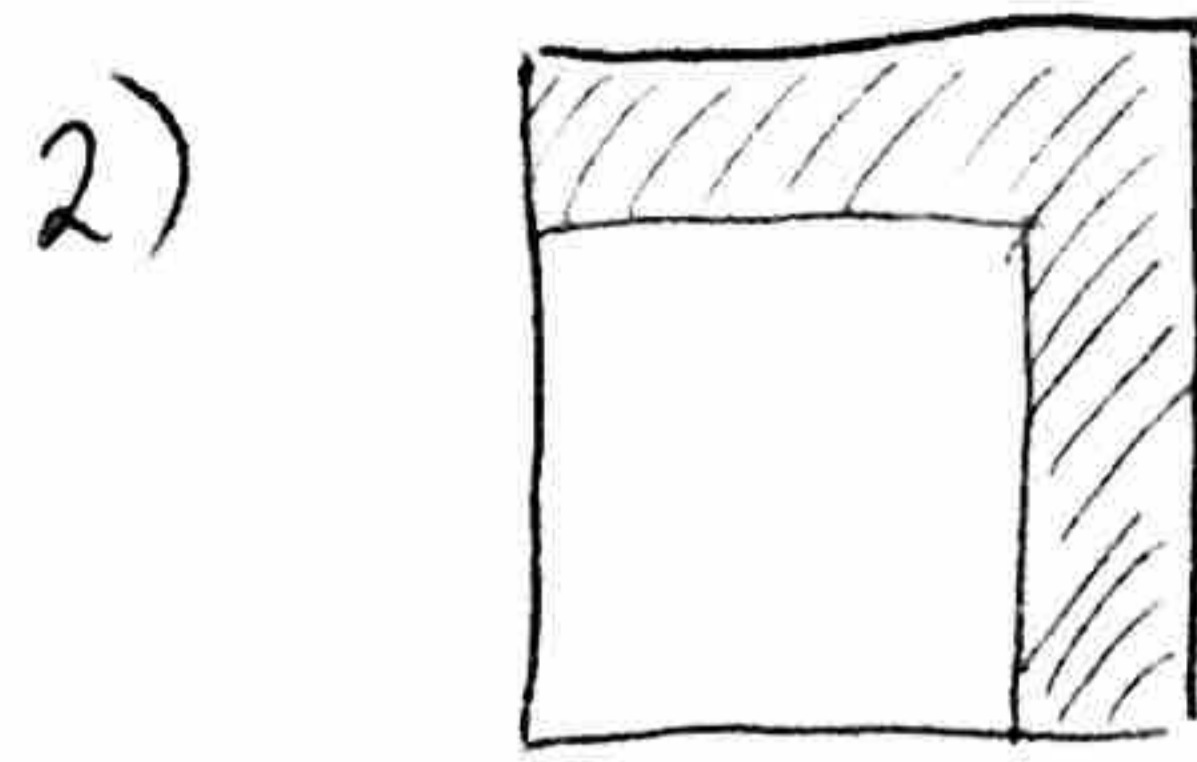
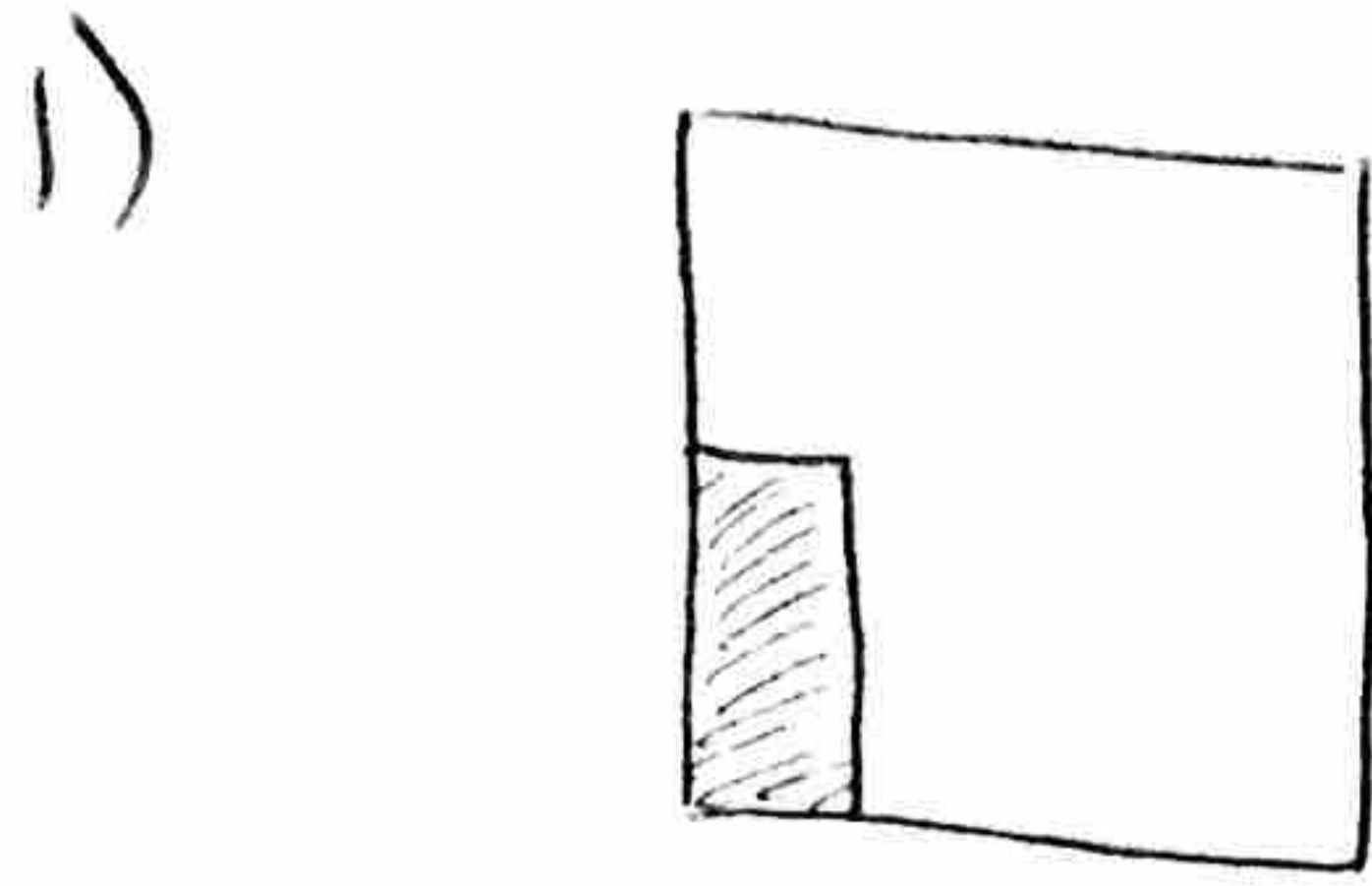


Keesha gana \$320 por una semana de trabajo en una tienda de ropa. Como bonificación, su jefe le paga \$15 más que lo que ganó la semana anterior, de manera que al final de la segunda semana Keesha gana \$335 y al final de la tercera semana, \$350.

19. ¿Cuánto ganará Keesha al final de la quinta semana?

20. ¿Cuánto ganará Keesha al final de la décima semana?

1-1 PRACTICE



4)

INPUT	PROCESS	OUTPUT
1	$5(1)$ -1	4
2	$5(2)$ -1	9
3	$5(3)$ -1	14
4	$5(4)$ -1	19
5	$5(5)$ -1	24
6	$5(6)$ -1	29
⋮		
n	$5 \cdot n$ -1	

5)

INPUT	PROCESS	OUTPUT
1	$-2 \cdot (1)$	-2
2	$-2(2)$	-4
3	$-2(3)$	-6
4	$-2(4)$	-8
5	$-2(5)$	-10
6	$-2(6)$	-12
⋮	$-2(\quad)$	
n	$-2n$	

6)

INPUT	PROCESS	OUTPUT
1	$0.5(1)$	0.5
2	$0.5(2)$	1.0
3	$0.5(3)$	1.5
4	$0.5(4)$	2.0
5	$0.5(5)$	2.5
6	$0.5(6)$	3.0
⋮		
n	$0.5n$	

7) THE PATTERN IS CREATED BY INSCIBING A NEW SMALLER SQUARE BY CONNECTING THE MIDPOINTS OF ~~PREVIOUSLY~~ EACH SIDE OF A PREVIOUSLY CREATED SQUARE.

8) THE PATTERN IS CREATED BY THE FOLLOWING
FORMULA $A = 3.5 \cdot W$

THEREFORE, WHEN WIDTH IS 8, $A = 3.5 \times 8 = 28$

9) USING THE SAME FORMULA $A = 3.5 \cdot W$

WHEN $W = 15$, $A = 3.5 \times 15 = 52.5$

10) $-5, -10, -20, -40, -80, -160, -320$
 $\underbrace{\quad} \cdot 2 \quad \underbrace{\quad} \cdot 2 \quad \underbrace{\quad} \cdot 2 \quad \underbrace{\quad} \cdot 2 \quad \underbrace{\quad} \cdot 2 \quad \underbrace{\quad} \cdot 2$

11) $5, 8, 11, 14, 17, 20, 23$
 $\underbrace{\quad} + 3 \quad \underbrace{\quad} + 3 \quad \underbrace{\quad} + 3 \quad \underbrace{\quad} + 3 \quad \underbrace{\quad} + 3 \quad \underbrace{\quad} + 3$

12) $3, 1, -1, -3, -5, -7, -9$
 $\underbrace{\quad} - 2 \quad \underbrace{\quad} - 2 \quad \underbrace{\quad} - 2 \quad \underbrace{\quad} - 2 \quad \underbrace{\quad} - 2 \quad \underbrace{\quad} - 2$

13) $1, 3, 6, 10, 15, 21, 28, 36$
 $\underbrace{\quad} + 2 \quad \underbrace{\quad} + 3 \quad \underbrace{\quad} + 4 \quad \underbrace{\quad} + 5 \quad \underbrace{\quad} + 6 \quad \underbrace{\quad} + 7 \quad \underbrace{\quad} + 8$

14) $\frac{2}{3}, \frac{3}{4}, \frac{4}{5}, \frac{5}{6}, \frac{6}{7}, \frac{7}{8}, \frac{8}{9}$

15) $10, 9, 6, 1, -6, -15, -26, -39$
 $\underbrace{\quad} - 1 \quad \underbrace{\quad} - 3 \quad \underbrace{\quad} - 5 \quad \underbrace{\quad} - 7 \quad \underbrace{\quad} - 9 \quad \underbrace{\quad} - 11 \quad \underbrace{\quad} - 13$

16) BY CONTINUING THE PATTERN ON THE GRAPH, WE
CAN SEE, THAT THE ANSWER IS \$80

17) THE PATTERN IS COST = NUMBER OF DVDS $\times 16$

18) $C = n \times 16$

19)

Week 1	\$ 320	
2	335) +15
3	350) +15
4	365) +15
5	<u>\$ 380</u>) +15
:		

20) We NOTICE THAT \$15 WAS ADDED TO HER WEEK 1 CHECK FOUR TIMES TO GET TO WEEK FIVE AMOUNT. THEREFORE, TO KNOW WHAT ~~WEEK~~ HER CHECK IS AT THE END OF TENTH WEEK, WE NEED TO ADD \$15 NINE TIMES.

$$\begin{aligned} \text{Week 10} &= \$320 + 9 \cdot \$15 \\ &= \$320 + \$135 \\ &= \text{\$455} \end{aligned}$$