## READY

Topic: Creating tables from graphs
For each of the given functions, either explicit or recursive, find the missing values in the table. Use the explicit rules and equations as a tool to find the values. If you are not given the explicit rule you might consider creating it to help you with your work.

1. $f(x)=-2 x+7$

| $x$ | $f(x)$ |
| :---: | :---: |
| -3 |  |
| 0 |  |
|  | 43 |
| 21 |  |

2. $g(x)=3 x-25$

| $x$ | $g(x)$ |
| :---: | :---: |
| -8 |  |
|  | 26 |
| 12 |  |
|  | -37 |

3. $h(x)=h(x-1)+6 ; h(1)=-13$

| $x$ | $h(x)$ |
| :---: | :---: |
| 3 |  |
| 15 |  |
|  | 5 |
|  | 23 |

4. $d(t)=d(t-1)-2 ; d(1)=34$

| $t$ | $d(t)$ |
| :---: | :---: |
| 2 |  |
|  | -2 |
| 10 |  |
|  | 10 |

5. $y=7 x-35$

| $x$ | $y$ |
| :---: | :---: |
| -2 |  |
| 0 |  |
|  | 21 |
|  | 0 |

6. $x+y=24$

| $x$ | $y$ |
| :---: | :---: |
| 10 |  |
|  | 0 |
|  | -20 |
| 0 |  |

## SET

Topic: Organizing information in matrices
Elvira has been running a private catering business to make extra money. She needs some help organizing the information in problems $\mathbf{7}$ through $\mathbf{1 0}$ below so that she can better predict amounts to purchase and improve her profits. Assist her by organizing the information in a meaningful way so that she can average the years and do better for the coming year.
7. The last three years Elvira has catered family gatherings and city events. Last year she provided the following at family gatherings she catered: 5 bags of chips, 6 dozen cookies and 4 gallons of drink. Last year at city events she provided the following: 16 bags of chips, 20 gallons or drink and 24 dozen cookies. Organize this information.
8. Two year ago Elvira provided the following at family events: 5 gallons of drink, 4 bags of chips and 5 dozen cookies. While she provided the following at city events: 20 dozen cookies, 18 gallons or drink and 12 bags of chips.
9. Three years ago Elvira provided the following at city events: 14 bags of chips, 20 gallons of drink and 19 dozen cookies. She also provided the following at family gatherings: 6 bags of chips, 7 dozen cookies and 9 gallons or drink.
10. If you provide Elvira with an average amount to be ordered for the gatherings and events she caters in the coming year, how much of each item would she need? Present the average in an organized way.

GO

Topic: Arithmetic and Geometric Sequences
Remember sequences from the beginning of the year. For each sequence below, determine whether it is either arithmetic or geometric and find both the recursive and the explicit rules.
11. $1,3,5,7, \ldots$

Arithmetic or geometric?
Recursive: $\qquad$
Explicit: $\qquad$
13.

| Time <br> (in days) | Number <br> of people |
| :--- | :--- |
| 1 | 3 |
| 2 | 7 |
| 3 | 11 |
| 4 | 15 |

Arithmetic or geometric?
Recursive: $\qquad$
Explicit: $\qquad$
15. Elvira likes to exercise in her spare time. She has been running. The first days she went running she did 1000 yards. She has been running an additional 50 yards each day she works out.

Arithmetic or geometric?
Recursive: $\qquad$
Explicit: $\qquad$
12. $3,6,12,24, \ldots$

Arithmetic or geometric?
Recursive: $\qquad$
Explicit: $\qquad$
14.

| Time <br> (in days) | Number of <br> bacteria |
| :--- | :--- |
| 1 | 5 |
| 2 | 8 |
| 3 | 12.8 |
| 4 | 20.48 |
| Arithmetic or geometric? |  |

Recursive: $\qquad$
Explicit: $\qquad$
16. Evan has started a business and following Bills example is going to send out a chain email to get customers. He sends the email to 5 people the first day and they each are going to send it to 7 people. Then those will each send it to 7 more and so on.

Arithmetic or geometric?
Recursive: $\qquad$
Explicit: $\qquad$

