## Practice: Graphing Guess My Rule

You have seen that various patterns look different when you graph them. In this activity, you will use some tables and rules such as ones you made in Lesson 1: Guess My Rule to make graphs and answer the questions below.

Table 1

| $\operatorname{In}(x)$ | Out $(y)$ |
| :---: | :---: |
| 1 | 3 |
| 2 | 6 |
| 3 | 9 |
| 4 | 12 |

Rule 1: $y=3 x$

Table 2

| $\ln (x)$ | Out $(y)$ |
| :---: | :---: |
| 1 | 3 |
| 2 | 5 |
| 3 | 7 |
| 4 | 9 |

Rule 2: $y=2 x+1$

Table 3

| $\operatorname{In}(x)$ | Out $(y)$ |
| :---: | :---: |
| 1 | 9 |
| 2 | 8 |
| 3 | 7 |
| 4 | 6 |

Rule 3: $y=10-x$

1. Draw a graph for each table and its rule. Use the grid provided on page 59.
a. Label the $x$-axis and the $y$-axis.
b. Plan where you will mark the increments on each axis, and then do so.
c. Label at least three points on each graph.
d. Draw a line to connect the points.
e. Label each line with its rule or equation.
2. Describe each of the three graphs by answering the following questions:
a. What does the graph look like?
b. Which way does the line slope? Is it steep or flat?
c. Where does the graph start?
d. Describe the pattern. Does $y$ increase or decrease as $x$ increases?

# Rule 1: Graph description 

Rule 2: Graph description

Rule 3: Graph description
"Guess My Rule" Graphs


