$\qquad$
$\qquad$ Date $\qquad$
1-1
Practice
Form K
Patterns and Expressions

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

2.

3.


Make a table with a process column to represent the pattern. Write an expression for the number of circles in the $n$th figure. The table has been started for you.
4.


| Figure Number <br> (input) | Process <br> Column | Number of <br> Circles (Output) |
| :---: | :---: | :---: |
| 1 | $1(2)$ | 2 |
| 2 | $2(2)$ | 4 |
| 3 | $3(2)$ |  |
| 4 |  |  |
| $\square$ | $\square$ | $\square$ |
| $n$ |  |  |

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

## $1-1$ <br> Practice (continued) <br> Patterns and Expressions

Form K

The graph shows the number of cups of flour needed for baking cookies.
5. How many cups of flour are needed for baking 4 batches of cookies?


Number of batches of cookies
7. How many cups of flour are needed for baking $n$ batches of cookies?

## Identify a pattern by making a table. Include a process column.

Hint: To start, list the points on the graph. Make a table of input and output values shown in the ordered pairs. Use the process column to figure out the pattern.
8.

Input

Input

Identify the pattern and find the next three numbers in the pattern.
10. $1,4,16,64, \ldots$
11. $3,6,12,24, \ldots$

