

Name _____

Record Inputs and Outputs in a Two-Column Table

I Can generate a number pattern.

CONNECT A pattern is an ordered set of numbers. You can use a rule or an equation to describe a pattern. When an equation describes the pattern, find the value of the unknowns to make a table or write the pattern.

Florida's B.E.S.T.

- Algebraic Reasoning 5.AR.3.2
- Mathematical Thinking & Reasoning
MTR.1.1, MTR.2.1, MTR.4.1, MTR.5.1,
MTR.6.1, MTR.7.1



UNLOCK the Problem Real World

Luisa is making flan. For every egg, she can make three flans. The rule $f = 3e$ describes the relationship between the number of flans f and the number of eggs e . How many flans can Luisa make if she uses 5 eggs?

You can use an input/output table or a list to show a pattern. When a pattern is shown in a table, it shows the relationship between the inputs and outputs. When a pattern is shown in a list, it only shows the outputs in order.

Complete the input/output table. Replace e in the equation $f = 3e$ with the value shown in the table to find the value of the output f .

Input	Eggs	e	1	2	3	4	5
Output	Flans	f					

The pattern for the number of flans is 3, 6, _____, _____, _____.

The fifth number in the pattern is _____.

So, Luisa can make _____ flans.

- What if Luisa changed her recipe to make 4 flans with every egg? How would the pattern change?



Math Talk

MTR 4.1 Engage in discussions on mathematical thinking.

Explain how you can use the pattern to find how many flans can be made using 9 eggs.

Example Find the pattern.

The rule for the number of circles in a figure is $c = f + 2$ where c is the number of circles and f is the figure number. How many circles will be in Figure 8?



Figure 1



Figure 2



Figure 3

Complete the input/output table.

Input	Figures	f	1	2	3	4	5	6	7	8
Output	Circles	c								

The pattern for the number of circles

is 3, 4, _____, _____, _____, _____, _____.

The eighth number in the pattern is _____.

So, there are _____ circles in Figure 8.

Share and Show

Use the rule to complete the table.

- ✓ 1. Rule: $g = 2n + 6$.

Input	Output
n	g
1	
2	
3	
4	

- ✓ 2. Rule: $p = r \times 12$.

Input	r	2	4	6	8
Output	p				