

Function Rules and Dot Patterns

Function rules are often used to describe geometric patterns. In the pattern at the right, for example, do you see this relationship?

1st figure:	$3 \times 1 = \text{dots}$
2nd figure:	$3 \times 2 = 6$ dots
3rd figure:	$3 \times 3 = 9$ dots
4th figure:	$3 \times 4 = 12$ dots

So, the "*n*th" figure in this pattern would have $3 \times n$, or 3n, dots. A function rule that describes the pattern is 3n.

Write a function rule to describe each dot pattern.



1st

2nd

3rd

4th

3 dots

6 dots

9 dots

➤ 12 dots

7. CHALLENGE Create your own dot pattern. Then exchange patterns with a classmate. Try to find the function rule for each other's patterns.