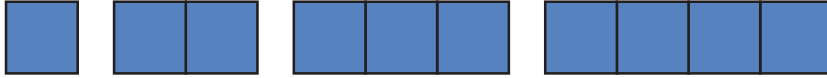


Patterns—Modified

The diagram below shows the first four figures in the square pattern. The first figure has one square. For each additional figure, one new square is added.



1. Compute the perimeter of the first four figures.
2. Draw the fifth and sixth figures and compute their perimeters.
3. Describe in words how to draw the 10th figure and what the perimeter would be.
4. Describe how to find the perimeter of the 100th figure and explain how the description relates to the pattern of tiles.
5. Write a rule to relate the perimeter P to the number of tiles t . Explain how each part of your formula relates to the tile pattern.
6. Graph the function. Why does it make sense that the graph has the shape it does in relation to the pattern?