## TASK

Name $\qquad$ Date $\qquad$

## S-Pattern Task ${ }^{1}$



1. What patterns do you notice in the set of figures?
2. Sketch the next two figures in the sequence.
3. Describe a figure in the sequence that is larger than the $20^{\text {th }}$ figure without drawing it.
4. Determine an equation for the total number of tiles in any figure in the sequence. Explain your equation and show how it relates to the visual diagram of the figures.
5. If you knew that a figure had 9802 tiles in it, how could you determine the figure number? Explain.
6. Is there a linear relationship between the figure number and the total number of tiles? Why or why not?
