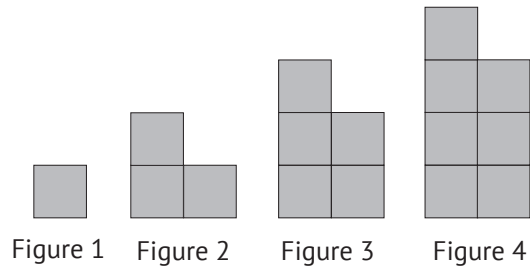# The Block Tower Problem

## An Introduction to Mathematical Modeling

Consider the growing tower below:

Figure 1    Figure 2    Figure 3    Figure 4

Use your tiles to create Figure 5 on your desktop.

Look for patterns in the growth of the figure. How do you see the figure growing?

How could you determine (without counting the tiles) how many tiles would be needed for a particular figure number?

Explain/describe/sketch what the tenth figure would look like. Use your pattern to determine the number of tiles needed to build the tenth figure.

Explain/describe/sketch how you would find the number of tiles needed for *any figure number*.