

Building Patterns Incrementally Copymaster 3



first apartment

second apartment

third apartment

How many orange squares do we need for the first apartment block? The second? The third?

How many orange squares will we need for the fifth apartment? The seventh?

What is the recurrence rule for the number pattern for the orange squares? (How does it change as we go from apartment to apartment?)

What is the number of the apartment if we have to use exactly 49 orange squares to make it?

*Which of these numbers are **not** a number of squares for one of these apartments: 79, 80, 81, 82?*

What is the largest number of squares less than 100 in this pattern?

Which apartment number has four times as many squares as another? (Is there more than one answer for this question?)

What is the general rule for this pattern? That is, given the number of the apartment, can you make up a rule that gives the number of the squares?

Can you see any more patterns here?