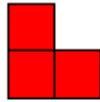


## Building as a General Rule Copymaster 8

There are three tasks for you here.



first factory



second factory



third factory

### Task 1

How many red squares do you need for the first factory? The second? The third?

How many red squares will you need for the fifth factory? The sixth? The seventh?

What can you say about the number of squares that you will need for any factory in this sequence?

What do you think the general rule for the pattern for these factories is?

Can we test this general rule out with a few examples? Does it work for the first factory?

The second factory? The tenth factory?

### Task 2

Use a recurrence rule to find another pattern that has the same first three terms as the factory pattern above?

Does it work for the first factory? The second factory? The tenth factory?

### Task 3

Call the pattern of Task 1 the 'Task 1 pattern' and the pattern from Task 2 the 'Task 2 pattern'. Which is the biggest, the eighth term of the Task 1 pattern or the eighth term of the Task 2 pattern?

Is there a term of the Task 1 pattern that is 6 more than or 6 less than some term of the Task 2 pattern?

Which pattern has the term that is nearest to 100?