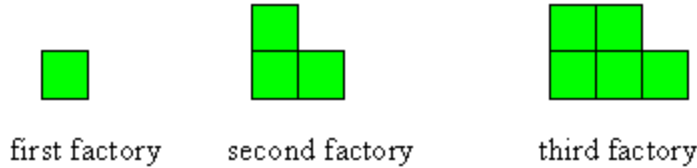


## Building as a General Rule Copymaster 2

### The Green Factories

Answer as many questions as you can. There are three tasks to try.



#### Task 1

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

How many green squares will you need for the tenth factory? The twelfth? The 25th?

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

While you're looking at this pattern, what happens if you put two of the green factories together?

Experiment by putting the second and third factories together.

What do you get? What is the significance of the 5 here?

If you add any green factory to any green factory will you always get another factory?

Experiment some more to see if this is true or not.

If it is what is the number of the answer factory? How can you find out?

What does this tell you about adding an odd number to another odd number?

#### Task 3

Now add any red factory to any green factory. What do you get?

Can you predict the answer when you add any red factory to any green factory?

What does this tell you about adding an even number to an odd number?