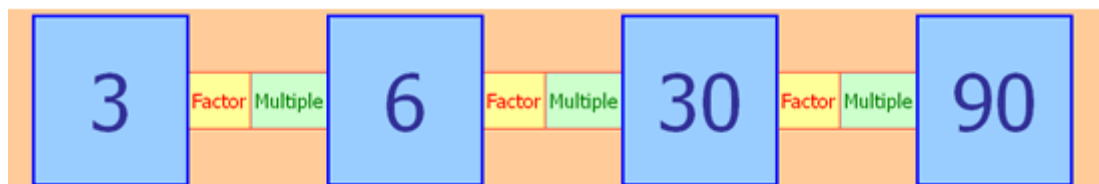


# POW!!

Week beginning 18.01.21

## Factor-multiple Chains

Here is an example of a factor-multiple chain of four numbers:



Can you see how it works? Perhaps you could make some statements about some of the numbers in the chain using the words "factor" and "multiple".

In these chains, each blue number can range from 2 up to 100 and must be a whole number.

You may like to experiment with [this spreadsheet](#) which allows you to enter numbers in each box. Perhaps you can make some more chains for yourself.

What are the smallest blue numbers that will make a complete chain?

What are the largest blue numbers that will make a complete chain?

What numbers cannot appear in any chain?

What is the biggest difference possible between two adjacent blue numbers?

What is the largest and the smallest possible range of a complete chain? (The range is the difference between the largest and smallest values.)

**Simply 'having a go' is a great way to make a start on a mathematical problem. Whatever happens, you will have learnt more about the situation and can then tweak your**

**approach. This activity lends itself to this 'trial and improvement' way of working.**

## **FEEDBACK**

<https://forms.office.com/Pages/ResponsePage.aspx?id=oyzTzM4Wj0KVQTctawUZKSnyAaLdfPRDq-ni6VEyVXVUREM1Q0M5NTZIVUtFWkM3REozNE04MkRXUS4u>

Write your responses to tell others what you found out by problem solving.

Here are some examples of things you might find. But I'm sure there's plenty more.

1. There is only one option for 9 x
2. The largest difference between two adjacent blue numbers is .....
3. 33 cannot appear in any chain.