Year 6 – Spring Block 6 – Ratio – Using Scale Factors

About This Resource:

This PowerPoint has been designed to support your teaching of this small step. It includes a starter activity and an example of each question from the Varied Fluency and Reasoning and Problem Solving resources also provided in this pack. You can choose to work through all examples provided or a selection of them depending on the needs of your class.

National Curriculum Objectives:

Mathematics Year 6: (6R3) Solve problems involving similar shapes where the scale factor is known or can be found

More Year 6 Ratio resources.

Did you like this resource? Don't forget to review it on our website.

Year 6 – Spring Block 6 – Ratio

Wow! It's the 1st May 2020 – what a very long month April was this year! Here's to a better May – and the hope that we will be back to school and normality as soon as possible.

Part 1

WALT Use Scale Factors

Follow this presentation and make notes and answer the questions as you go. Ideally, aim to do parts 1-4 of this lesson, but if you are unable to finish, try to ensure you complete parts 1 and 2 of this lesson – this presentation and the first set of challenges.

Introduction

David has a packet of pencils.

For every 2 red pencils, there are 4 green pencils.

If there are 30 pencils in total, how many of each colour are there?

Introduction

David has a packet of pencils.

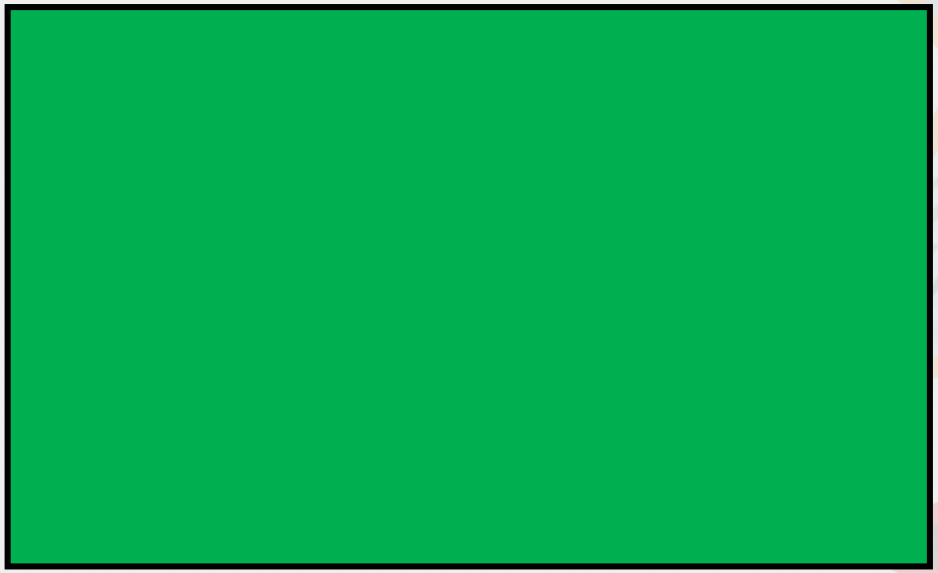
For every 2 red pencils, there are 4 green pencils.

If there are 30 pencils in total, how many of each colour are there?

Red = 10 pencils Green = 20 pencils

Varied Fluency 1

Enlarge this shape by a scale factor of 3.



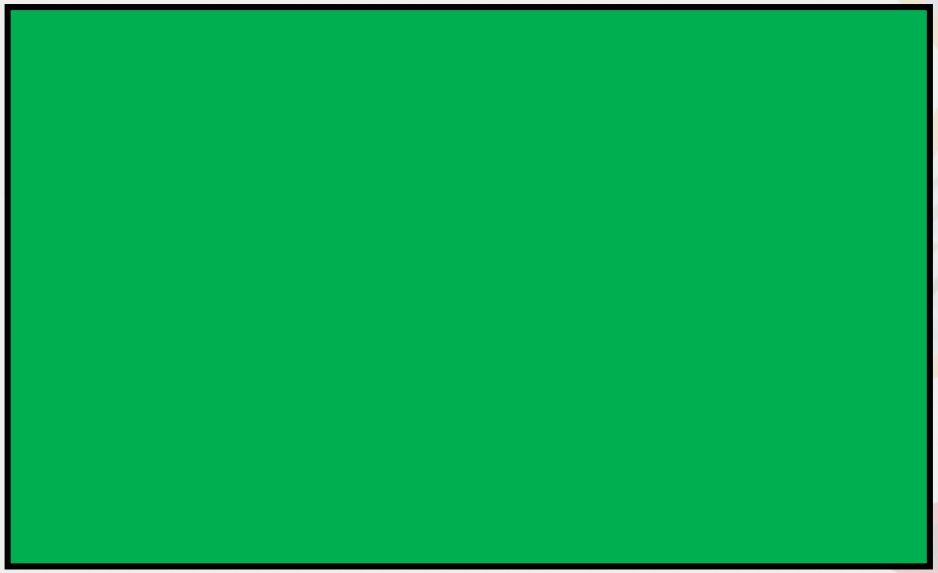
7.4cm

12.2cm

Not to scale

Varied Fluency 1

Enlarge this shape by a scale factor of 3.



Height: 22.2cm Length: 36.6cm

Not to scale

Varied Fluency 2

Tommy says,

A scale factor of two means you multiply each side of the original shape by four.

Is he correct?

Varied Fluency 2

Tommy says,

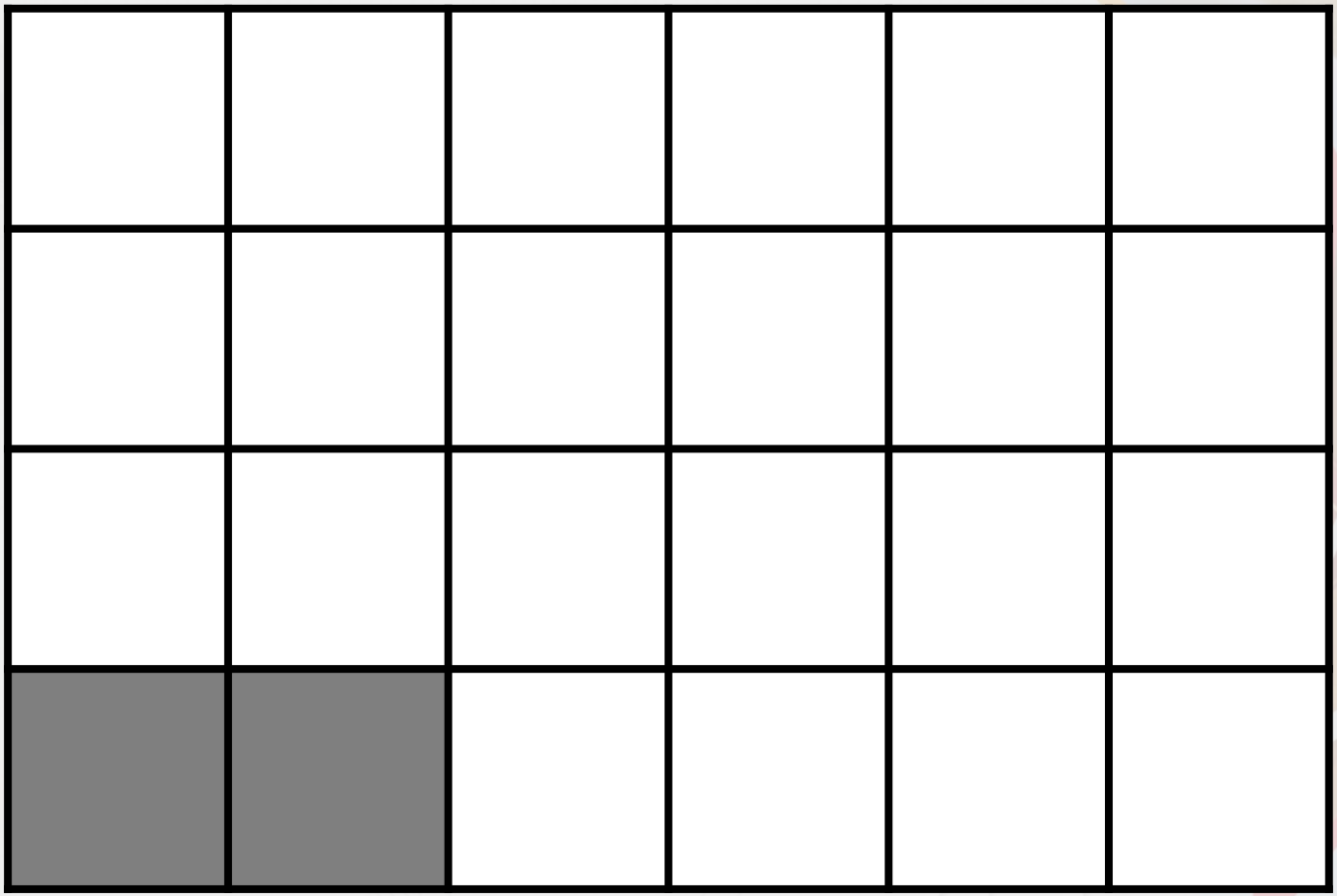
A scale factor of two means you multiply each side of the original shape by four.

Is he correct?

No, a scale factor of two means you multiply each side by two.

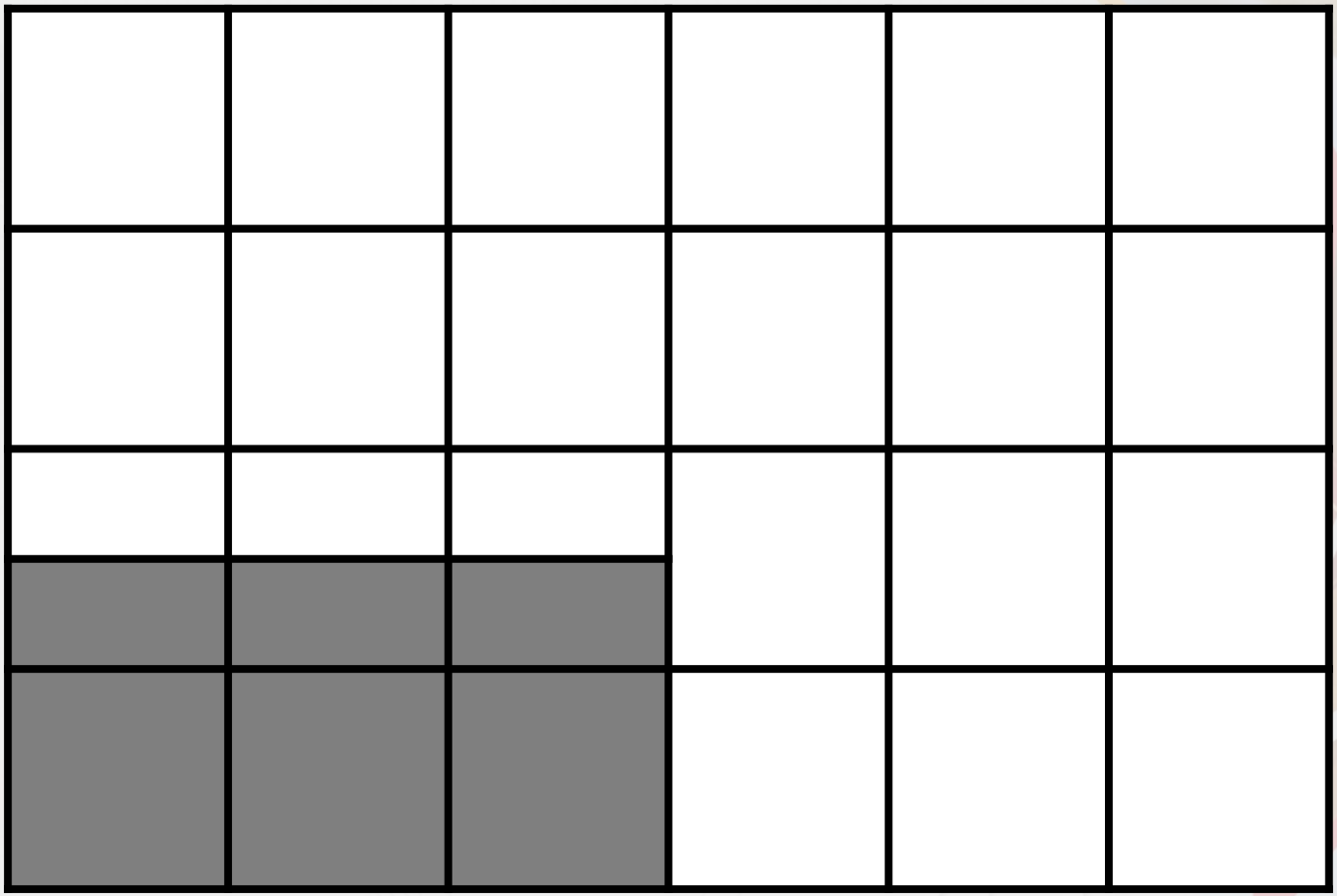
Varied Fluency 3

Copy this shape onto squared paper.
Draw it using a scale factor of 1.5.



Varied Fluency 3

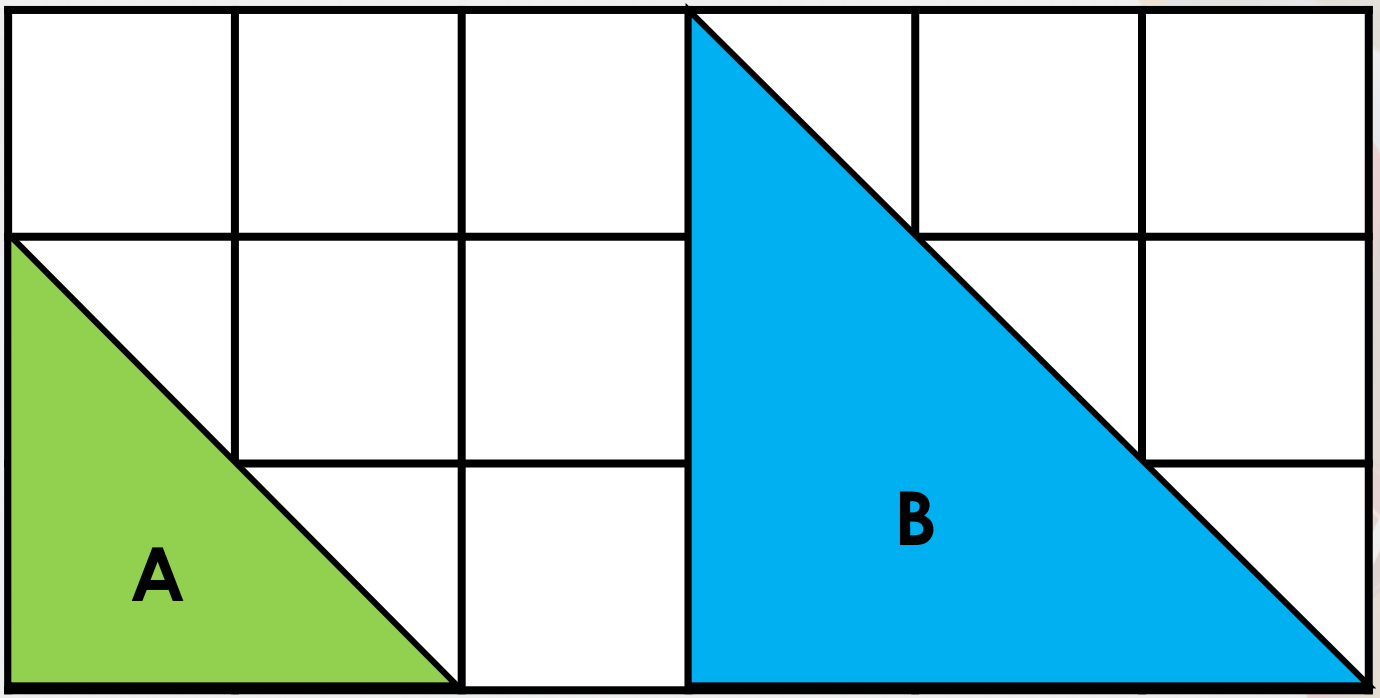
Copy this shape onto squared paper.
Draw it using a scale factor of 1.5.



Varied Fluency 4

True or false?

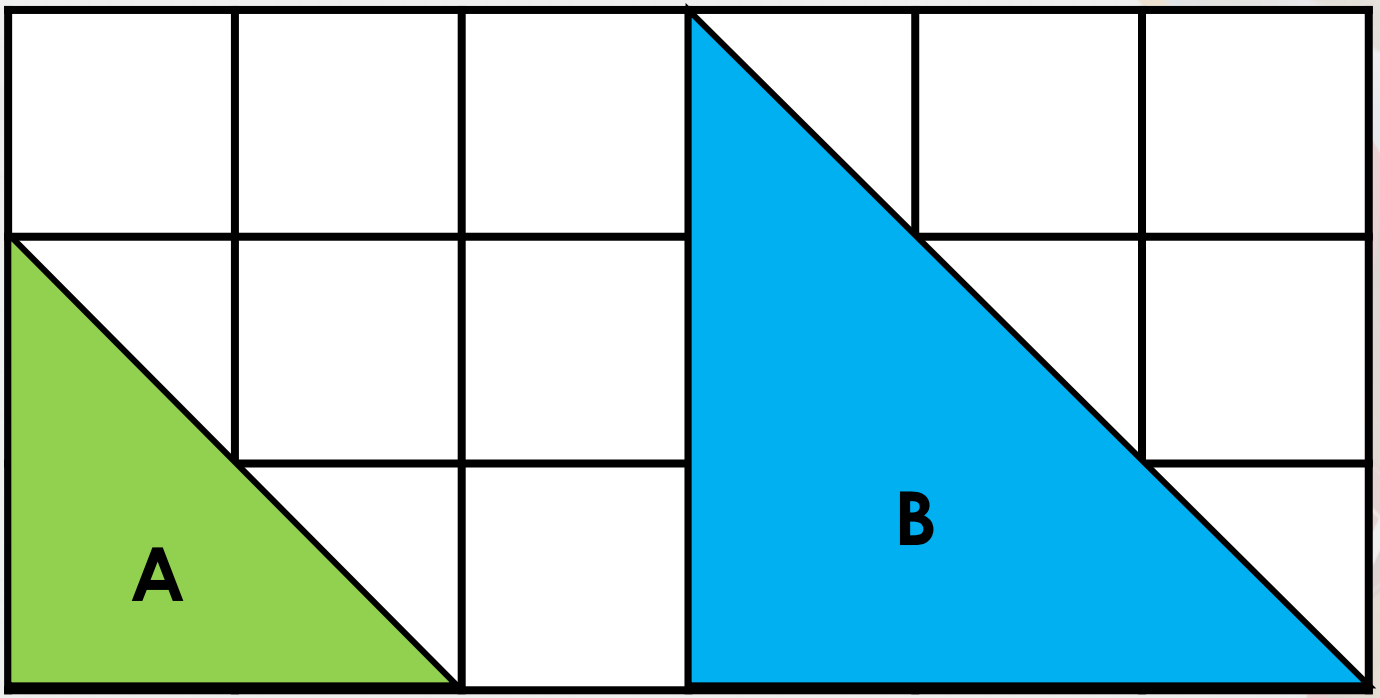
Shape A has been increased by a scale factor of 2.



Varied Fluency 4

True or false?

Shape A has been increased by a scale factor of 2.



False. It has been increased by a scale factor of 1.5.

Well done! It's over to you now.

Go to Part 2 and choose your challenge! Normal rules apply: page 1 will give you an easier challenge, page 2 will be about the same as what we've just practised and page 3 will be more of a stretch.

You only need to do the first four questions on your chosen challenge – the ones on the left-hand side. If you want extra practice, you can then do the four questions on the right hand side of your chosen challenge page. When you finish, don't forget to mark your answers before sharing, so I can see where you need help.