

## Year 5 – Autumn Block 4 – Multiplication and Division – Common 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 5: (5C5a) [Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers](#)

Mathematics Year 5: (5C8a) [Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes](#)

[More resources](#) which follow the same small steps as White Rose.

Did you like this resource? Don't forget to [review](#) it on our website.

# Step 3: Common Factors

## Introduction

Circle the numbers that are not factors of 48.

1

9

20

24

8

5

3

4

7

2

6

12

16

48

## Introduction

Circle the numbers that are not factors of 48.

1

9

20

24

8

5

3

4

7

2

6

12

16

48



## Varied Fluency 1

Circle the common factors of 6 and 24.

3

5

9

4

1

10

7

2

6

## Varied Fluency 1

Circle the common factors of 6 and 24.

|   |   |    |
|---|---|----|
| 3 | 5 | 9  |
| 4 | 1 | 10 |
| 7 | 2 | 6  |

## Varied Fluency 2

Complete the number sentences with the missing common factor.

$$\square \times 4 = 32$$

$$56 \div \square = 7$$

## Varied Fluency 2

Complete the number sentences with the missing common factor.

$$\boxed{8} \times 4 = 32$$

$$56 \div \boxed{8} = 7$$



### Varied Fluency 3

**Match the pairs of numbers to their common factor.**

**36 and 90**

**32 and 44**

**21 and 63**

**4**

**7**

**9**

### Varied Fluency 3

**Match the pairs of numbers to their common factor.**

|                  |          |
|------------------|----------|
| <b>36 and 90</b> | <b>4</b> |
| <b>32 and 44</b> | <b>7</b> |
| <b>21 and 63</b> | <b>9</b> |

The diagram shows three pairs of numbers on the left and three common factors on the right. Red lines indicate the correct matches: a line from '36 and 90' to '9', a line from '32 and 44' to '4', and a line from '21 and 63' to '7'.

## Varied Fluency 4

Write all of the common factors for the numbers below.

**18**

**27**

## Varied Fluency 4

Write all of the common factors for the numbers below.

**18**

**27**

**1, 3 and 9**



### Problem Solving 1

**Circle the pair of numbers which share the most number of common factors.**

**12 and 22**

**17 and 26**

**24 and 33**

**35 and 42**

**16 and 20**

### Problem Solving 1

**Circle the pair of numbers which share the most number of common factors.**

**12 and 22**

**17 and 26**

**24 and 33**

**35 and 42**

**16 and 20**

## Reasoning 1

Lily says,



**The number 2 is the  
largest common  
factor of 36 and 40.**

**Is Lily correct? Prove it.**

## Reasoning 1

Lily says,



**The number 2 is the largest common factor of 36 and 40.**

**Is Lily correct? Prove it.**

**Lily is not correct because...**



## Reasoning 1

Lily says,



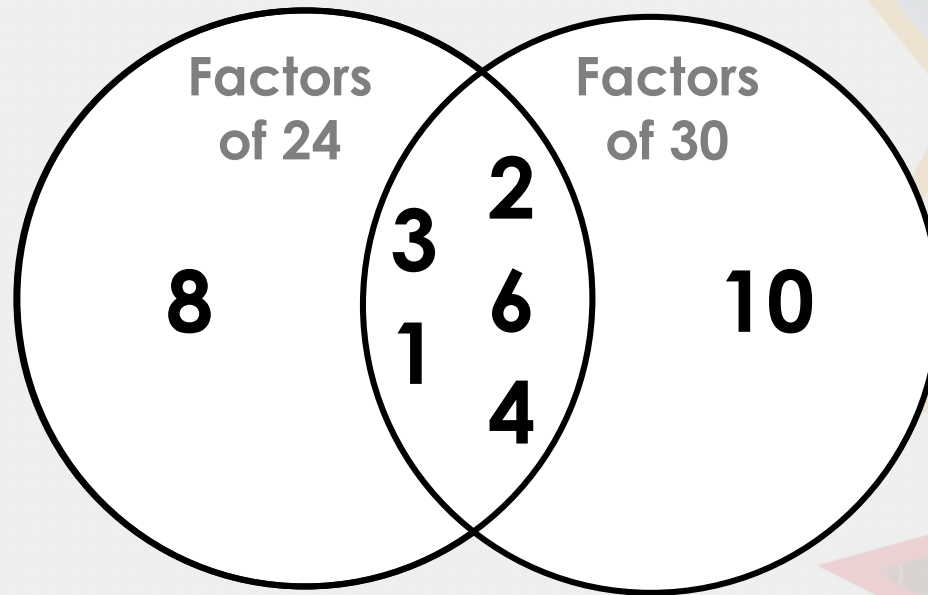
**The number 2 is the largest common factor of 36 and 40.**

**Is Lily correct? Prove it.**

**Lily is not correct because the number 4 is the largest common factor of 36 and 40.**

## Reasoning 2

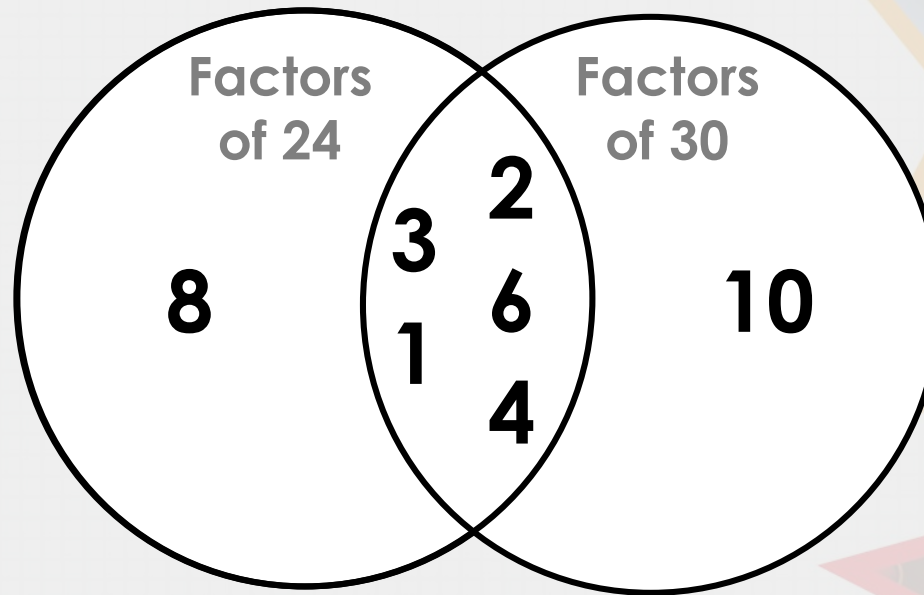
Kasim has sorted some factors into a Venn diagram.



Explain the mistake he has made.

## Reasoning 2

Kasim has sorted some factors into a Venn diagram.

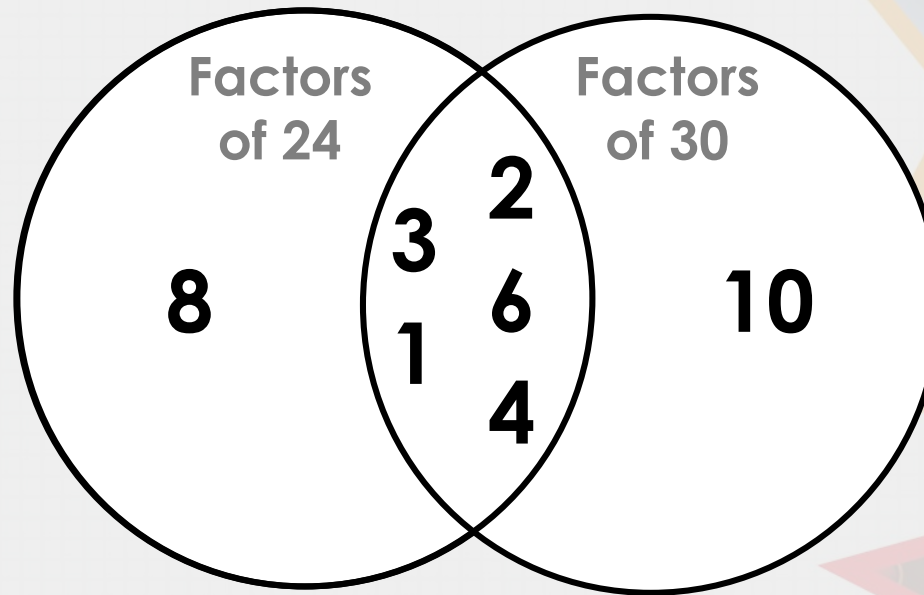


Explain the mistake he has made.

**Kasim's mistake is...**

## Reasoning 2

Kasim has sorted some factors into a Venn diagram.



Explain the mistake he has made.

**Kasim's mistake is that 4 is not a factor of 30 so it should not be in the middle of the Venn diagram. It should only be listed as a factor of 24.**