

## Number and Calculations

### Key Knowledge/Prior Learning and Retrieval and Suggested Starters

- Place value
- Inequalities inc number lines

### KS3 National Curriculum – what students will be practicing and Key Questions

- Ordering numbers inc decimals
- Calculations: Addition, subtraction, multiplying and dividing in decimals
- Order of operations
- Rounding and Estimation
- Multiples, Factors and Primes
- Prime factor decomposition
- HCF & LCM
- Error Intervals inc basic calculations or calculation error intervals

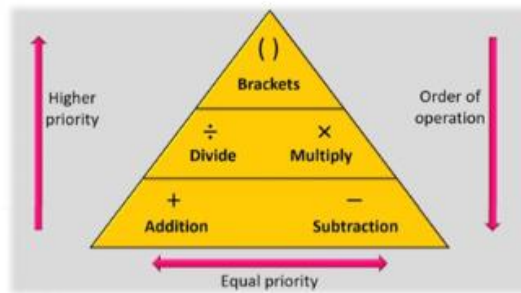
### Specific Ambitious Knowledge

- Prime factorisation: factor trees and venn diagram or division and a table
- HCF: Through a table and through prime factors
- LCM: From a list and through prime factors

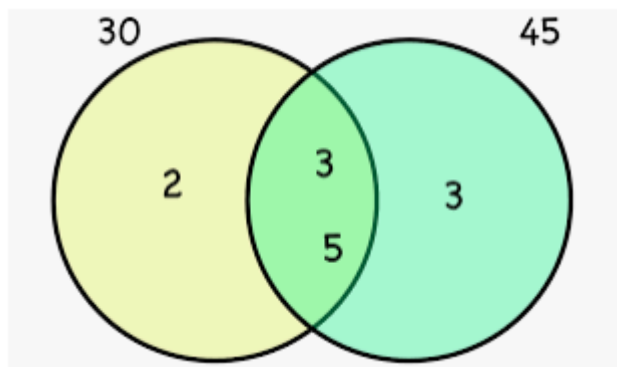
### Key Vocabulary/Literacy Opportunities

- Place value
- Operations
- Decimal place
- Significant figures
- Multiple
- Factor
- Prime
- Estimation
- Approximation
- Square
- Cube
- Square/Cube Root
- Inequality
- Greater/less than
- Bounds
- Limits of accuracy
- Error Interval

## Key Formulae/Knowledge



BIDMAS



HCF/LCM with a Venn

### LCM using Repeated Division

Find the LCM of 24 and 36

2	24	36
2	12	18
3	6	9
	2	3

LCM:  $2 \times 2 \times 3 \times 2 \times 3 = 72$

### HCF using Repeated Division

Find the HCF of 24 and 36

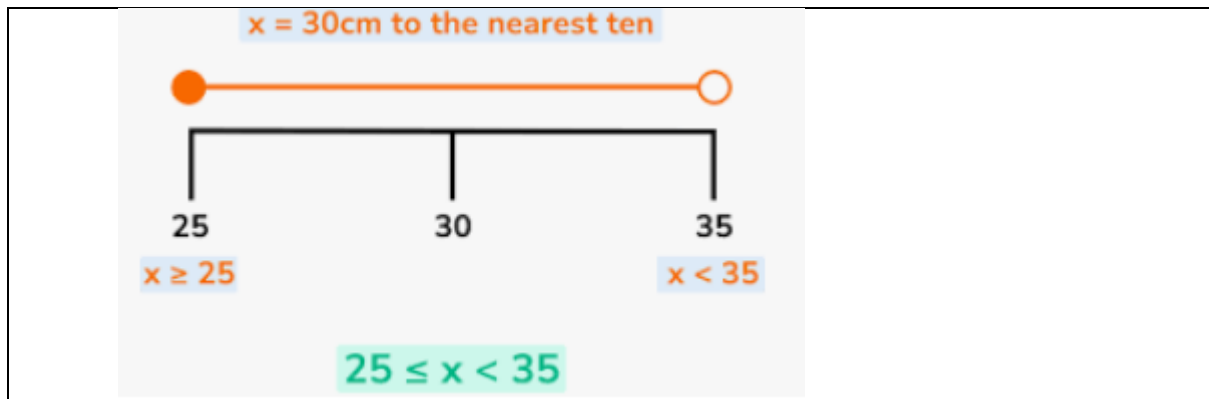
2	24	36
2	12	18
3	6	9
	2	3

HCF:  $2 \times 2 \times 3 = 12$

division

HCF/LCM through

Error Intervals



### Maths in Context (Historical, Real Life and Student Thinking Points)

#### Projects/Enrichment/Investigations

- Filling the gaps: [https://nrich.maths.org/7547?utm\\_source=secondary-map](https://nrich.maths.org/7547?utm_source=secondary-map)
- LCM Sudoku: [https://nrich.maths.org/6018?utm\\_source=secondary-map](https://nrich.maths.org/6018?utm_source=secondary-map)
- Latin Numbers: [https://nrich.maths.org/434?utm\\_source=secondary-map](https://nrich.maths.org/434?utm_source=secondary-map)
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