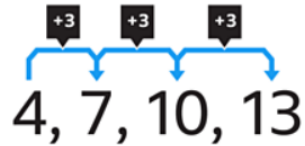


# Academic Year 2023-2024

## Stage 7

### Formulae, Sequences and Rules



- Substituting into formula and expressions
- Generating terms of a sequence

### Introducing algebra

$$2x + 4$$

- Knowing the terminology for algebra
- Using algebraic notation
- Simplifying expressions by collecting like terms and multiplying over a bracket

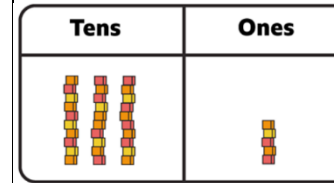
### Linear Equations

$$ax + b = 0$$

Coefficient ↑  
 Variable ↓  
 Constant ↓

- Solving linear equations in one variable (unknown on one side)

### Working with Place value



- Understanding place value
- Ordering numbers and using correct symbolism
- Working with terminating decimals and corresponding fractions
- Expressing one quantity as a fraction of another

### Fractions, Decimals and percentages

Fraction	Decimal	Percentage
$\frac{4}{5}$		10%
$\frac{3}{20}$	0.17	

- Working with equivalences between simple fractions, decimals and percentages
- Calculating decimal fraction equivalents for a simple fraction by considering fractions as divisions
- Multiplying simple pairs of proper fractions, in simplest form
- Dividing proper fractions by whole numbers

# Academic Year 2023-2024

## Stage 7

### Order of operations

**BIDMAS**

**B BRACKETS**

**I INDICES AND INTEGERS**

**D DIVISION** Multiplication and division are performed whichever comes first from left to right.

**M MULTIPLICATION**

**A ADDITION** Addition and subtraction are performed whichever comes first from left to right.

**S SUBTRACTION**

- Using inverse operations
- Using order of operations (BIDMAS)
- Using a calculator

### Percentages



- Considering fractions and percentages as operators
- Working with percentages and percentage changes using fractions or decimals

### Linear equations

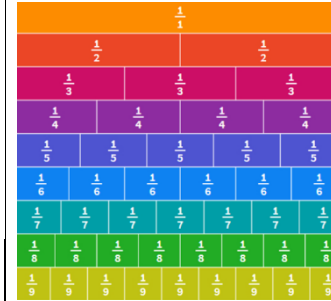
Coefficient

$$ax + b = 0$$

Variable      Constant

Solving linear equations in one variable (unknown on one side)

### Arithmetic with fractions

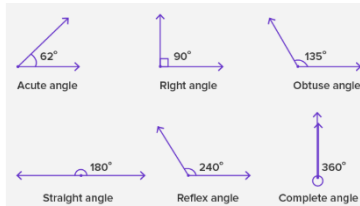


- Arithmetic with mixed numbers (including negatives)

# Academic Year 2023-2024

## Stage 7

### Lines and Angles



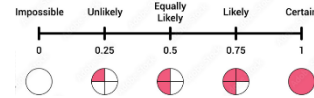
- Using correct conventions for drawing (including points, lines, parallel lines, perpendicular lines and right angles)
- Using the properties of angles at a point, on a straight line and vertically opposite

### Properties of shapes and solids



- Drawing and illustrating properties of plane figures
- Using the properties 3d shapes to solve problems

### The probability scale



- Understanding the probability scale
- Understanding that the probabilities of all possible outcomes sum to 1

### Powers, roots and rounding



- Using powers and roots
- Reading to an appropriate degree of accuracy (inc. significant figures)