Ratio and Scale

Small Steps

- Understand the meaning and representation of ratio
- Understand and use ratio notation
- Solve problems involving ratios of the form $1 : n$ (or $n : 1$)
- Solve proportional problems involving the ratio $m : n$
- Divide a value into a given ratio
- Express ratios in their simplest integer form
- Express ratios in the form $1 : n$ **H**
- Compare ratios and related fractions
- Understand π as the ratio between diameter and circumference
- Understand gradient of a line as a ratio   **H**

> **H**   denotes higher strand and not necessarily content for Higher Tier GCSE

Multiplicative Change

Small Steps

- Solve problems involving direct proportion

- Explore conversion graphs

- Convert between currencies

- Explore direct proportion graphs **(H)**

- Explore relationships between similar shapes

- Understand scale factors as multiplicative representations

- Draw and interpret scale diagrams

- Interpret maps using scale factors and ratios

> **(H)** denotes higher strand and not necessarily content for Higher Tier GCSE

Multiplying & Dividing Fractions

Small Steps

- Represent multiplication of fractions
- Multiply a fraction by an integer
- Find the product of a pair of unit fractions
- Find the product of a pair of any fractions
- Divide an integer by a fraction
- Divide a fraction by a unit fraction
- Understand and use the reciprocal
- Divide any pair of fractions

Multiplying & Dividing Fractions

Small Steps

- Multiply and divide improper and mixed fractions   **H**
- Multiply and divide algebraic fractions   **H**

> **H** denotes higher strand and not necessarily content for Higher Tier GCSE