

WHAT DO WE ALREADY *know*?

- Find a multiplier in a situation involving proportion.
- Plot the graph of a linear function.
- Understand the meaning of a compound unit.
- Convert between units of length, capacity, mass and time

Stage 9 - Proportional reasoning



- Solve problems involving direct and inverse proportion, including a graphical and algebraic representations

KEYWORDS

- Direct proportion
- Inverse proportion
- Multiplier
- Linear-"resembling a line, of or pertaining to lines," 1640s, from French linéaire
- Congruent-early 15c., "suitable, proper, harmoniously joined or related," from Latin congruentem
- Congruence
- Similar
- Similarity
- Compound unit
- Density
- Population density
- Pressure

Proportional reasoning - Targets

| | Before Topic | After Topic | Teacher Mark |
|---|--------------|-------------|--------------|
| Know the difference between direct and inverse proportion and the features of each graph | | | |
| Distinguish between situations involving direct and inverse proportion | | | |
| Solve simple problems involving rates of pay | | | |
| Solve more complex ratio problems involving mixing or concentrations and unit pricing. | | | |
| Convert between compound units of speed, rates of pay, density and pressure | | | |
| Solve simple problems involving density and pressure | | | |
| Use the knowledge that speed is how far you travel in a second/hour and the unitary method to calculate speed, distances and times for journeys | | | |
| Be able to find missing values in speed, distance and time calculations | | | |