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| **F Unit 11: Ratio and Proportion** | **Road Map** |
| In this unit you will learn about ratio and proportion. The aims are as follows:**LG1**: Knowledge**LG2**: Application**LG3**: Skills | Assessment Grades |  |  |
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| **Themes** | **Learning Goals/Outcomes/Content** |  |  |  |
| 11a Ratio | Understand and express the division of a quantity into a of number parts as a ratio; |  |  |  |
| Write ratios in their simplest form;  |  |  |  |
| Write/interpret a ratio to describe a situation;  |  |  |  |
| Share a quantity in a given ratio including three-part ratios;  |  |  |  |
| Solve a ratio problem in context: |  |  |  |
| use a ratio to find one quantity when the other is known;  |  |  |  |
| use a ratio to compare a scale model to a real-life object;  |  |  |  |
| use a ratio to convert between measures and currencies;  |  |  |  |
| problems involving mixing, e.g. paint colours, cement and drawn conclusions; |  |  |  |
| Compare ratios;  |  |  |  |
| Write ratios in form 1 : *m* or *m* : 1;  |  |  |  |
| Write a ratio as a fraction; |  |  |  |
| Write a ratio as a linear function; |  |  |  |
| Write lengths, areas and volumes of two shapes as ratios in simplest form;  |  |  |  |
| Express a multiplicative relationship between two quantities as a ratio or a fraction. |  |  |  |

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| 11b Proportion  | Understand and use proportion as equality of ratios;  |  |  |  |
| Solve word problems involving direct and indirect proportion; |  |  |  |
| Work out which product is the better buy;  |  |  |  |
| Scale up recipes; |  |  |  |
| Convert between currencies; |  |  |  |
| Find amounts for 3 people when amount for 1 given;  |  |  |  |
| Solve proportion problems using the unitary method; |  |  |  |
| Recognise when values are in direct proportion by reference to the graph form;  |  |  |  |
| Understand inverse proportion: as *x* increases, *y* decreases (inverse graphs done in later unit);  |  |  |  |
| Recognise when values are in direct proportion by reference to the graph form;  |  |  |  |
| Understand direct proportion ---> relationship *y* = *kx*. **Links:** LG1: You will simplify ratios and divide quantities in a given ratio. LG2: You will apply your knowledge of ratio and proportion to scale recipes, convert between currencies and solve best value problems. LG3: You will solve complex word problems involving ratio and proportion.  |  |  |  |