

3.2 Unit M5: Foundation Tier Completion Test

This unit targets grades D, E, F and G at GCSE level.

Students should know the content of Unit M1 before taking this unit.

Content	Learning Outcomes
Number and algebra	<p>Students should be able to:</p> <ul style="list-style-type: none"> ● solve problems involving whole numbers, fractions, decimals and percentages without a calculator; ● estimate answers and check calculations using approximation and estimation; ● use ratio notation, including reduction to its simplest form and its various links to fraction notation; ● divide a quantity in a given ratio; ● apply ratio and proportion to real-life contexts and problems such as conversion, best-buy, comparison, scaling, mixing, concentrations and exchange rates; ● recognise and use sequences of, for example, triangular, square and cube numbers; ● generate terms of a sequence using term-to-term or a position-to-term rule; and ● plot and interpret graphs modelling real situations, for example conversion graphs, distance/time graphs and intersecting travel graphs.

Content	Learning Outcomes
Geometry and measures	<p>Students should be able to:</p> <ul style="list-style-type: none">• interpret scales on a range of measuring instruments and recognise the continuous nature of measure and approximate nature of measurement;• know and use imperial measures still in common use and their approximate metric equivalents;• use and interpret maps, scale factors and scale drawings;• use the sum of angles in a triangle, for example to deduce the angle sum in any polygon;• describe and transform 2D shapes using single transformations;• describe and transform 2D shapes using reflections about the x and y axes;• describe and transform 2D shapes using single rotations about the origin;• describe and transform 2D shapes using translations;• describe and transform 2D shapes using enlargements by a positive whole number scale factor; and• draw triangles and other 2D shapes using a ruler and protractor.

Content	Learning Outcomes
Handling data	<p>Students should be able to:</p> <ul style="list-style-type: none">• understand and use the vocabulary of probability, including notions of uncertainty and risk;• use the terms fair, random, evens, certain, likely, unlikely and impossible;• understand and use the probability scale from 0 to 1;• list all outcomes for single events, and for two successive events;• apply systematic listing strategies;• work out probabilities expressed as fractions or decimals from simple experiments with equally likely outcomes and simple combined events;• identify different mutually exclusive outcomes and know that the sum of the probabilities of all these outcomes is 1;• understand the probability of an event not occurring is one minus the probability that it occurs; and• use probabilities to calculate expectation.