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| **F Unit 18: More fractions, reciprocals, standard form, zero and negative indices** | **Road Map** |
| In this unit you will learn about number. The aims are as follows:**LG1**: Knowledge**LG2**: Application**LG3**: Skills | Assessment Grades |  |  |
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| **Themes** | **Learning Goals/Outcomes/Content** |  |  |  |
| 18a Fractions | Add and subtract mixed number fractions;  |  |  |  |
| Multiply mixed number fractions;  |  |  |  |
| Divide mixed numbers by whole numbers and vice versa; |  |  |  |
| Find the reciprocal of an integer, decimal or fraction; |  |  |  |
| Understand ‘reciprocal’ as multiplicative inverse, knowing that any non-zero number multiplied by its reciprocal is 1 (and that zero has no reciprocal because division by zero is not defined). |  |  |  |
| 18b Indices and standard form | Use index laws to simplify and calculate the value of numerical expressions involving multiplication and division of integer powers, fractions and powers of a power; |  |  |  |
| Use numbers raised to the power zero, including the zero power of 10;  |  |  |  |
| Convert large and small numbers into standard form and vice versa; |  |  |  |
| Add, subtract, multiply and divide numbers in standard form; |  |  |  |
| Interpret a calculator display using standard form and know how to enter numbers in standard form. |  |  |  |

**Links:**

LG1: You will add, subtract, multiply and divide fractions, use the rules of indices and convert between standard form and ordinary form numbers.

LG2: You will apply the number processes from this topic to other areas of maths, including algebra.

LG3: You will use your problem solving skills and mastery of number to solve complex Mathematical problems such as worded problems involving fractions.