## Number and Multiplicative Reasoning:

| Objective | Sparx Task |  |
| :--- | :---: | :---: |
| Use prime factor decomposition to find the <br> HCF or LCM of two numbers | U250 |  |
| Use the HCF and LCM to find possible pairs of <br> numbers | U250 |  |
| Apply equal priority laws to + and - and $\times$ and <br> $\div$ | M521 |  |
| Use order of operations to solve simple <br> calculations with + and - and $\times$ and $\div$ | M521 |  |
| Solve complex order of operation questions <br> with brackets, roots and powers | M521 |  |
| Use the index laws for multiplication and <br> division of integer powers | U235 |  |
| Recognise and find reciprocals and know that <br> the reciprocal is the multiplicative inverse |  |  |
| Find the reciprocal of an integer, decimal and <br> fraction including mixed numbers | Un30, U534 |  |
| Is this number in standard form? | U330 |  |
| Putting large numbers into standard form | U534 |  |
| Putting small numbers into standard form | U338 |  |
| What is a surd? | U338 |  |
| Simplifying surds | U633 |  |
| Multiplying surds | U872 |  |
| Adding and subtracting with surds | U872 |  |
| Finding perimeters of shapes with surds | U633 |  |
| Finding areas of shapes with surds | U338 |  |
| Simplifying expressions with surds | M267 |  |
| Simplify ratios with fractions and decimals | M525 |  |
| Divide into a ratio when given the share or <br> total | M525 |  |
| Divide into a ratio when given the difference | M525 |  |
| Add two ratios together to solve a problem |  |  |


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| :--- | :---: | :---: |
| Find ratio table that shows direct proportion |  |  |
| Find ratio table that shows inverse proportion |  | M 472 |
| Find the equation using ratio tables | M 472 |  |
| Set up simple equations to show direct <br> proportions and solve problems | M 665 |  |
| Understand inverse proportions from ratio <br> tables |  |  |
| Set up simple equations to show inverse <br> proportions |  |  |

