## Algebra, Indices and Sequences:

| Objective | Sparx Task |  |
| :--- | :---: | :---: |
| Recognise arithmetic and quadratic sequences, <br> continue sequences and find terms using nth <br> term rule | M381, <br> M866, M991 |  |
| Find the nth term rule of a quadratic sequence | M418 |  |
| Recognise properties of sequences based on <br> triangle numbers and Fibonacci | M981 |  |
| Expand brackets of the type 5(x+2) +2x and <br> x3(3x-2)-2(x+3) | M792 |  |
| Expand double brackets e.g. (x+5)(x+3) | M960 |  |
| Expand double brackets in context e.g. areas of <br> shapes | M957 |  |
| Find the square of a single bracket e.g. $(x-3)^{2}$ <br> and (x+3) | M960 |  |
| Factorise quadratic expressions using sum <br> product | U858 |  |
| Factorise quadratic expressions using <br> difference of two squares | U963 |  |
| Recognise when an equation can be factorised <br> using either single or double brackets | M908 |  |
| Solve a quadratic equation by factorising | U228, U960 |  |
| Represent inequalities on a number line | M384 |  |
| Solve single linear inequalities and represent <br> solutions on a number line | M118 |  |
| Solve double sided linear inequalities and <br> represent solutions on a number line | M732 |  |
| Use index law to write algebraic expressions as <br> negatives powers and as fractions | U235, U694 |  |
| Recognise a formula, equation and a function. <br> Solve linear equations with fractions on both <br> sides | M830 |  |
| Form solve equations from pictures | U599 |  |
| Change the subject in simple formulae e.g. <br> ymx+c | U556 |  |


| Write formulae from words and rearrange | U599 |  |
| :--- | :---: | :---: |
| Change algebraic fractions to equivalent <br> fractions | U103 |  |
| Make $x$ the subject in a formula e.g. $x^{\wedge}-1=9-y$ | U556 |  |

## Accuracy and Measures:

| Objective | Sparx Task |  |
| :--- | :---: | :--- |
| Find average speed from a distance time graph | U462 |  |
| Find average speed given in different measures | U151 |  |
| Use average speed to find distance and time <br> taken | U462 |  |
| Convert compound units |  |  |
| Convert metric units of volume and area | M 772, |  |
| Understand density | M530, M761 |  |

