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| **Core Knowledge Map** | | | |
| Subject: Surds | Year: 10/11 | | Term: 1 |
| What are we learning? | | | |
| |  |  | | --- | --- | | Unit Objective | Sparx Code | | Adding and subtracting surds | P924 | | Multiplying and dividing surds | P999 | | Simplify Surds | P733 | | Expanding brackets with surds | P831 | | Rationalising the denominator | P616, P290 | | | | |
| How will I be assessed | | | |
| Topic test at end of unit which will consist of exam questions. | | | |
| Big questions: | | | |
| * Simplify the following 3√2 + 5√2 * Simplify √45 * Work out 3√2 x 7√5 * Rationalise * Rationalise * What are the values of x and y such that (√3 + 5)(√3 + 4) = x + y√3? | | | |
| How does this build on previous learning? | | How will this link to my future learning? | |
| Understanding square roots and how to work out a square root.  Knowing what square numbers are and how you work them out.  Simplifying expressions.  Expanding single and double brackets.  Know what an irrational number is. | | Working with exact values of trigonometry and multiple values when solving trigonometric equations.  This is recapped in A Level Maths within the first term. | |
| Core knowledge: | | Key vocabulary: | |
| Simplify surds.  Arithmetic with surds.  Expanding and simplify expressions with surds.  Rationalise the denominator with a single surd and expression as he denominator. | | Surd  Square root  Exact value  Denominator  Rationalise  Irrational number | |
| Need more help? Use the Sparx Independent Codes above. | | | |