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| **Core Knowledge Map** |
| Subject: Surds | Year: 10/11 | Term: 1 |
| What are we learning? |
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| 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 |

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| 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 $\frac{7}{3-4√2}$
* Rationalise $\frac{5\sqrt{3}+2}{2\sqrt{3}-√2}$
* What are the values of x and y such that (√3 + 5)(√3 + 4) = x + y√3?
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| 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. | SurdSquare rootExact valueDenominatorRationaliseIrrational number |
| Need more help? Use the Sparx Independent Codes above. |