<table>
<tr><td>Outcome</td><td>NF2</td><td>Student can consistently:</td><td>Find a fraction of an amount.</td></tr>
<tr><td>How the topic is examined</td><td colspan="3">

Examined through test paper questions.
Questions are likely to appear on non-calculator papers and are likely to be mixed in with ratio and percentages in the form of word problems and problem solving questions.

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<tr><td>Prior knowledge</td><td colspan="3">

Students should be confident:

Multiplying and dividing without a calculator.

In addition questions involving fractions of amounts can have links to:

Fractions (NF1).
Ratio and Percentages (NR1 – NR3).

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<tr><td>Suggested tuition approaches</td><td colspan="3">

Although this is a quite straightforward topic, students struggle to remember a rule. Many teachers teach the rule “divide by the bottom and then multiply by the top”. This rule is fine as long as students can remember it.
To help students it is worthwhile introducing this using a visual method that helps students understand what is going on. (e.g. Find $\frac{5}{6}$ of £180

The denominator tells you how many parts there are altogether. In this question there are 6 equal parts. We will represent this as six equal sized squares. Each part would equal £180 ÷ 6 = £30
<table>
<tr><td>£30</td><td>£30</td><td>£30</td><td>£30</td><td>£30</td><td>£30</td></tr>
</table>
We want 5 of these parts (as we want to find $\frac{5}{6}$)
<table>
<tr><td>£30</td><td>£30</td><td>£30</td><td>£30</td><td>£30</td><td>£30</td></tr>
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The answer therefore is £30 x 5 = £150
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	• This method may help students understand why they need to divide the amount by the denominator first and then multiply the answer by the numerator. • An alternative method is that some teachers encourage students to use the rule "of means multiply" and so $\frac{5}{6}$ of £180 = $\frac{5}{6}$ x £180. They then use the rules of multiply fractions (NF1) • Most problems involving fractions of an amount include work on ratio. (e.g. Ammar earns £1200 a month. 20% of this is used for rent. He saves $\frac{2}{5}$ of the remaining money. How much does he save?)
Common errors and misconceptions	• Students struggle to understand how to find a basic fraction of an amount. They often understand what it means to find a half, but beyond this many students struggle with fractions. A diagrammatical approach (see above) will help them understand why they do the calculations that they are doing. • Students struggle with division without a calculator. Encourage them to use the method of short division.
Suggested resources	• Video tutorial o https://www.youtube.com/watch?v=889Z0y8BwAo • Questions o https://corbettmaths.files.wordpress.com/2013/02/fractions-of-amounts-pdf.pdf • Past GCSE Questions o https://keshgcsemaths.files.wordpress.com/2013/11/5_fractions-of-an-amount.pdf