| | | | | | |
|---|---|---|---|---|---|
| **17** | eg $x = 0.34545....$ **and** $100x = 34.545....$<br>with intention to subtract<br>**OR**<br>$10x = 3.4545....$ **and** $1000x = 345.45....$<br>with intention to subtract<br><br>Must include algebra as the question asked for 'using algebra' | | 2 | M1 | for 2 recurring decimals (they must identify or show the pair they are using) that when subtracted give a whole number or terminating decimal eg $100x = 34.545....$ and $x = 0.34545....$ **OR** $1000x = 345.45....$ and $10x = 3.4545....$ with intention to subtract. (If recurring dots not shown then showing at least the digits 34545, i.e. 5sf for **one** of the numbers that they are using)<br>**OR**<br>$0.3 + 0.0454545\ldots$ and<br>Eg $10x = 0.454545\ldots$ and $1000x = 45.4545..$ |
| | eg $100x - x = 34.545.... - 0.34545....$ **and**<br>$99x = 34.2$ **and** $\frac{34.2}{99} = \frac{19}{55}$ oe<br>**OR** $1000x - 10x = 345.45.... - 3.4545....$ **and**<br>$990x = 342$ **and** $\frac{342}{990} = \frac{19}{55}$ oe<br>**OR** $0.3 + \ldots$ and $(1000x - 100x = 990x = 45)$<br>and $0.3 + \frac{45}{990} = \frac{3 \times 99 + 45}{990} = \frac{19}{55}$ oe | shown | | A1 | for completion to $\frac{19}{55}$ |
| | | | | | **Total 2 marks** |