

RECURRING FRACTION INTO DECIMAL

This material contains solved past papers. Every question bears the examination year and the original serial number.

- 9 Write the recurring decimal $0.2\dot{5}$ as a fraction.
[$0.2\dot{5}$ means $0.2555\dots$]

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$$\begin{aligned} \text{let } 0.2\dot{5} &= x \Rightarrow 10x = 2.\dot{5} \\ \therefore 100x &= 0.2\dot{5} \times 100 = 25.\dot{5} \\ 100x - 10x &= 25.\dot{5} - 2.\dot{5} \\ \Rightarrow 90x &= 23 \\ \Rightarrow x &= 23 \div 90 \end{aligned}$$

Answer $\frac{23}{90}$ [2]