

1 Convert $\frac{2}{9}$ to a decimal.

(2 marks)

2 Convert $\frac{4}{11}$ to a decimal.

(2 marks)

3 Convert $\frac{5}{6}$ to a decimal.

(2 marks)

4 Prove algebraically that the recurring decimal $0.\dot{8}$ can be written as $\frac{8}{9}$

(2 marks)

5 Prove algebraically that the recurring decimal $0.4\dot{7}$ can be written as $\frac{43}{90}$

(2 marks)

6 Prove algebraically that the recurring decimal $0.2\dot{3}$ can be written as $\frac{7}{30}$

(2 marks)

7 Write $0.1\dot{6}$ as a fraction in its simplest form.

(2 marks)

8 Write $0.2\dot{7}$ as a fraction in its simplest form.

(2 marks)

9 Write $0.4\dot{3}$ as a fraction in its simplest form.

(2 marks)

10 Prove algebraically that the recurring decimal $0.6\dot{8}1$ can be written as $\frac{15}{22}$

(2 marks)

11 Prove algebraically that the recurring decimal $0.\dot{2}1\dot{6}$ can be written as $\frac{8}{37}$

(2 marks)

12 Prove algebraically that the recurring decimal $0.\dot{1}2\dot{6}$ can be written as $\frac{14}{111}$

(2 marks)

13 Write $3.2\dot{5}4$ as a fraction in its simplest form.

(3 marks)

14 Write $2.74\dot{2}$ as a fraction in its simplest form.

(3 marks)

15 Write $3.5\dot{9}4$ as a fraction in its simplest form.

(3 marks)

16 x is an integer such that $1 \leq x \leq 9$

Prove that $0.\dot{0}x = \frac{x}{99}$

(2 marks)

17 Work out: $0.\dot{5}4 \times 0.5$

(4 marks)

18 Work out: $0.\dot{3}9 \div 0.\dot{6}3$

(4 marks)

19 Work out: $0.0\dot{7} \div 0.18\dot{5}$

(4 marks)