

N246 Recurring decimals to fractions

Q1.

Show that the recurring decimal $0.\dot{3}9\dot{6} = \frac{44}{111}$

(Total for question = 2 marks)

Q2.

Use algebra to show that the recurring decimal $0.\dot{4}1\dot{7} = \frac{139}{333}$

(Total for question = 2 marks)

Q3.

Show that the recurring decimal $0.\overline{015} = \frac{1}{66}$

(Total for Question is 2 marks)

Q4.

Express the recurring decimal $0.\overline{15}$ as a fraction.
Give your answer in its simplest form.

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(Total for Question is 3 marks)

Q5.

Express $0.2\dot{5}$ as a fraction in its simplest form.

(Total for Question is 3 marks)

Q6.

Prove that the recurring decimal $0.4\dot{3}$ has the value $\frac{13}{30}$

(Total for question = 2 marks)

Q7.

Prove algebraically that the recurring decimal $0.1\overline{78}$ can be written as the fraction $\frac{59}{330}$

(Total for question = 3 marks)

Q8.

Prove algebraically that the recurring decimal $0.3\overline{18}$ can be written as $\frac{7}{22}$

(Total for question = 2 marks)

Q9.

$$x = 0.4\dot{3}\dot{6}$$

Prove algebraically that x can be written as $\frac{24}{55}$

(Total for question = 3 marks)

Q10.

Express the recurring decimal $0.7\dot{5}\dot{0}$ as a fraction.

(Total for Question is 3 marks)

Q11.

Using algebra, prove that $0.\dot{1}\dot{3}\dot{6} \times 0.\dot{2}$ is equal in value to $\frac{1}{33}$

(Total for question = 3 marks)