

Recurring Decimals to Fractions

Question Paper

Level	GCSE
Subject	Maths
Exam Board	Edexcel GCSE
Topic	Recurring Decimals to Fractions
Grade Level	Grade 6
Booklet	Question Paper

Time Allowed: 48 minutes

Score: /40

Percentage: /100

Grade Boundaries:

1. (a) Change $\frac{3}{11}$ to a decimal.

.....

(1)

(b) Prove that the recurring decimal $0.\dot{3}9 = \frac{13}{33}$

(3)

(Total 4 marks)

2. Prove that the recurring decimal $0.\dot{4}5 = \frac{15}{33}$

(Total 3 marks)

3. Express the recurring decimal $0.2\dot{1}3$ as a fraction.

.....
(Total 3 marks)

4. Prove that $0.4\dot{7}3$ can be written as the fraction $\frac{469}{990}$

(Total 2 marks)

5. Prove that the recurring decimal $0.\dot{1}\dot{7} = \frac{17}{99}$

(Total 2 marks)

6. (a) Express $0.\dot{2}\dot{7}$ as a fraction in its simplest form.

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(3)

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

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

(2)

(Total 5 marks)

7. Change the recurring decimal $0.\dot{2}\dot{3}$ to a fraction.

.....

(Total 2 marks)

8. (i) Convert the recurring decimal $0.\dot{3}\dot{6}$ to a fraction.

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(ii) Convert the recurring decimal $2.1\dot{3}\dot{6}$ to a mixed number.
Give your answer in its simplest form.

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(Total 5 marks)

9. Convert the recurring decimal $2.1\dot{4}\dot{5}$ to a fraction.

.....

(Total 3 marks)

10. Express the recurring decimal $0.1\dot{2}\dot{6}$ as a fraction.

.....
(Total 3 marks)

11. Express $0.3\dot{2}\dot{8}$ as a fraction in its simplest form.

.....
(Total 3 marks)

12. The recurring decimal $0.\dot{7}\dot{2}$ can be written as the fraction $\frac{8}{11}$

Write the recurring decimal $0.5\dot{7}\dot{2}$ as a fraction.

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(Total 2 marks)

13. Express the recurring decimal $2.0\dot{6}$ as a fraction.
Write your answer in its simplest form.

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(Total 3 marks)