Surname	
Other Names	
Candidate's Signature	

GCSE 9 - 1 Questions

Recurring Decimals

Calculator Not Allowed

INSTRUCTIONS TO CANDIDATES

Write your name in the space provided.

Write your answers in the spaces provided in this question paper.

Answer ALL questions.

Any working should be clearly shown in the spaces provided since marks may be awarded for partially correct solutions.

You should have a ruler, compass and protractor where required.

Total Marks :

1) *(a)* Express $0\dot{2}\dot{7}\dot{4}$ as a fraction. [2]

(b) Express $0{\cdot}00\dot{4}$ as a fraction. [2]

(c) Express $0{\cdot}4\dot{2}\dot{8}$ as a fraction.

[2]

2) **(a)** Which of $\frac{3}{4}$, $\frac{3}{5}$, $\frac{3}{6}$, $\frac{3}{7}$, $\frac{3}{8}$, is a recurring decimal?

Answer _____ [1]

(b) Express $\frac{4}{11}$ as a recurring decimal.

Answer _____ [1]

3) Express $0{\cdot}4\dot{3}\dot{5}$ as a fraction.

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[2]

4) **(a)** Write $2.3\dot{5}$ as a fraction.

Answer _____ [2]

(b) Write $\frac{12}{99}$ as a recurring decimal. [2]

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(c) Convert each of the following fractions into a decimal.
State whether or not each decimal is **terminating** or **recurring**.
Show all your working. [4]

$\frac{5}{8}$

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Decimal ..... Terminating or recurring? .....

$\frac{3}{11}$

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Decimal ..... Terminating or recurring? .....

5) Express $0.3\dot{4}$ as a fraction.

Answer _____ [2]

6) Express $0\cdot\dot{8}\dot{5}$ as a fraction. [2]

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7) Express $0\cdot3\dot{6}$ as a fraction. [2]

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8) *(a)* Complete the following table. [3]

Fraction	Decimal	Recurring or terminating?
$\frac{1}{3}$	$0\dot{3}$	.....
$\frac{5}{8}$	.....	.....
$\frac{3}{11}$	.....	.....

(b) Evaluate $33 \times 0\dot{5}\dot{1}$. [3]

(c) Write $\frac{13}{99}$ as a recurring decimal.

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[2]

9) Change the recurring decimal $0.8\dot{3}$ to a fraction.

You must show all your working.

Answer _____ [2]

10) Express $0{\cdot}3\dot{4}\dot{6}$ as a fraction. [2]

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11) Express $0\dot{7}5\dot{2}$ as a fraction.

[2]

12) Express $0\cdot7\dot{4}$ as a fraction. [2]

13) Express $0\cdot0\dot{3}\dot{4}$ as a fraction.

[2]

14) Express $0\cdot3\dot{8}\dot{1}$ as a fraction. [2]

15) Complete the following table.
The fraction must be expressed in its simplest form. [3]

Fraction	Decimal	Is this a recurring or terminating decimal?
$\frac{2}{3}$	$0\dot{6}$	recurring
.....	0·15	.....
$\frac{7}{11}$	.....	.....

16) Evaluate $\frac{1}{3} + 0\dot{0}\dot{4}$, expressing your answer as a fraction. [3]