



**Name:** \_\_\_\_\_ **Date:** \_\_\_\_\_ **Score:** \_\_\_\_\_ / 34

**1** Write each recurring decimal as a fraction in its simplest form.

a.  $0.\dot{3}$

b.  $0.\dot{8}$

(2 marks)

Answer \_\_\_\_\_

**2** Amelia says that  $0.2\dot{9} = \frac{29}{100}$

Explain why Amelia is wrong.

(1 mark)

Answer \_\_\_\_\_

**3** Express 0.7 as a fraction.

(2 marks)

Answer \_\_\_\_\_

**4** Express  $0.5\dot{4}$  as a fraction in its simplest form.

(3 marks)

Answer \_\_\_\_\_

**5** Prove algebraically that the recurring decimal  $0.4\dot{5}$  can be written as  $\frac{5}{11}$

(3 marks)

Answer \_\_\_\_\_

6 Express the recurring decimal  $0.2\overline{13}$  as a fraction in its simplest form.

(The digits 2, 1 and 3 all recur.)

(3 marks)

Answer \_\_\_\_\_

7 Write  $1.2\overline{3}$  as a mixed number in its simplest form.

(Only the digit 3 recurs.)

(3 marks)

Answer \_\_\_\_\_

8 Prove algebraically that the recurring decimal  $0.2\overline{8}$  can be written as  $\frac{13}{45}$

(Only the digit 8 recurs.)

(3 marks)

Answer \_\_\_\_\_

9 Express the recurring decimal  $0.3\overline{51}$  as a fraction in its simplest form.

(Only the digits 5 and 1 recur.)

(3 marks)

Answer \_\_\_\_\_

10 Work out  $0.1\overline{3} + 0.5\overline{}$

Give your answer as a fraction in its simplest form.

(3 marks)

Answer \_\_\_\_\_

11 Show algebraically that  $0.7\overline{2} + 0.2\overline{7} = 1$

(3 marks)

Answer \_\_\_\_\_

12

Work out  $0.18 \times 0.45$

Give your answer as a fraction in its simplest form.

You must show all your working.

(5 marks)

Answer

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End of questions | Total 34 marks