

Quiz: Real numbers

Section: Writing Fractions as recurring decimals and recurring decimals as fractions

Sub-section: Writing Fractions as recurring decimals and recurring decimals as fractions

Choose the correct answer.

1. Convert $\frac{10}{12}$ to recurring decimal.

(understand MA 1.1 G 8/2)

A. $0.\dot{1}\dot{2}$

B. $0.1\dot{2}$

C. $0.8\dot{3}$

D. $0.\dot{8}\dot{3}$

Solution C

$$\frac{10}{12} = 0.8333... = 0.8\dot{3}$$

2. Convert $\frac{23}{11}$ to recurring decimal.

(understand MA 1.1 G 8/2)

A. $2.\dot{0}\dot{9}$

B. $2.0\dot{9}$

C. $2.\dot{1}$

D. $2.\dot{3}$

Solution A

$$\frac{23}{11} = 2.090909... = 2.\dot{0}\dot{9}$$

3. Convert $\frac{95}{111}$ to recurring decimal.

(understand MA 1.1 G 8/2)

A. $0.\dot{8}\dot{5}$

B. $0.\dot{8}\dot{5}\dot{5}$

C. $0.\dot{9}\dot{5}$

D. $0.\dot{9}\dot{5}\dot{5}$

Solution B

$$\frac{95}{111} = 0.855855... = 0.\dot{8}\dot{5}\dot{5}$$

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4. Convert $\frac{543}{9}$ to recurring decimal.

(understand MA 1.1 G 8/2)

A. $60.\dot{0}\dot{3}$

B. $60.0\dot{3}$

C. $60.\dot{3}$

D. $60.\dot{4}$

Solution C

$$\frac{543}{9} = 60.333... = 60.\dot{3}$$

5. Convert $1.1111...$ to fraction.

(understand MA 1.1 G 8/2)

A. $1\frac{1}{99}$

B. $1\frac{1}{10}$

C. $1\frac{1}{9}$

D. $1\frac{2}{9}$

Solution C

$$x = 1.1111...$$

$$10x = 11.111...$$

$$10x - x = 10$$

$$x = \frac{10}{9} = 1\frac{1}{9}$$

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6. Convert $5.5555\dots$ to fraction.

(understand MA 1.1 G 8/2)

A. $5\frac{5}{99}$

B. $5\frac{5}{10}$

C. $5\frac{5}{9}$

D. $6\frac{1}{9}$

Solution C

$$x = 5.5555\dots$$

$$10x = 55.555\dots$$

$$10x - x = 50$$

$$x = \frac{50}{9} = 5\frac{5}{9}$$

7. Convert $10.\dot{1}1\dot{2}$ to fraction.

(understand MA 1.1 G 8/2)

A. $10\frac{112}{999}$

B. $10\frac{111}{990}$

C. $10\frac{112}{990}$

D. $10\frac{12}{99}$

Solution A

$$x = 10.112112\dots$$

$$1000x = 10112.112\dots$$

$$1000x - x = 10102$$

$$x = \frac{10102}{999} = 10\frac{112}{999}$$

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8. Convert $0.1\dot{3}\dot{2}$ to fraction.

(understand MA 1.1 G 8/2)

A. $\frac{131}{999}$

B. $\frac{132}{999}$

C. $\frac{131}{990}$

D. $\frac{132}{990}$

Solution C

$$x = 0.13232\ldots$$

$$10x = 1.3232\ldots$$

$$1000x = 132.32\ldots$$

$$1000x - 10x = 131$$

$$x = \frac{131}{990}$$