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

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

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

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

   Solution B

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

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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

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

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

   $x = 1.1111\ldots$

   $10x = 11.111\ldots$

   $10x - x = 10$

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

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6. Convert 5.5555… 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

   $x = 5.5555\ldots$

   $10x = 55.555\ldots$

   $10x - x = 50$

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

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

   $x = 10.112112\ldots$

   $1000x = 10112.112\ldots$

   $1000x - x = 10102$

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

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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

   $x = 0.13232\ldots$

   $10x = 1.3232\ldots$

   $1000x = 132.32\ldots$

   $1000x - 10x = 131$

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