



Converting Recurring Decimals to Fractions

Grade 8 Recurring Decimals Worksheet

Date: _____

Name: _____

LET'S MAKE LEARNING DECIMALS FUN

Convert Recurring Decimals to Fractions

1. $0.\overline{111} =$

8. $0.\overline{435} =$

2. $0.\overline{101} =$

9. $0.\overline{137} =$

3. $0.\overline{201} =$

10. $0.\overline{333} =$

4. $0.\overline{121} =$

11. $0.\overline{254} =$

5. $0.\overline{113} =$

12. $0.\overline{171} =$

6. $0.\overline{231} =$

13. $0.\overline{723} =$

7. $0.\overline{151} =$

14. $0.\overline{167} =$

Convert Recurring Decimals to Fractions

Concept Explanation

To solve; $0.\overline{111} = ?$

$$\text{Let } x = 0.111 \quad (1)$$

Multiply both sides by 1000

$$1000x = 111.111 \quad (2)$$

Subtract: (2) – (1)

$$100x - x = 111.111 - 0.111$$

$$999x = 111$$

Divide both sides by 999

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

Answers

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

2. $\frac{101}{999}$

3. $\frac{67}{333}$

4. $\frac{121}{999}$

5. $\frac{113}{999}$

6. $\frac{231}{999}$

7. $\frac{151}{999}$

8. $\frac{145}{333}$

9. $\frac{137}{999}$

10. $\frac{1}{3}$

11. $\frac{254}{999}$

12. $\frac{19}{111}$

13. $\frac{241}{333}$

14. $\frac{167}{999}$