

Grade 8 Repeating Decimals as Fractions

Integers • Grade 8 • Mixed Review • Set C • CCSS 8.NS.1

Name: _____

Date: _____

Convert each repeating decimal to a fraction in simplest form, then classify the last three numbers.

1. Write 0.555... as a fraction in simplest form.

2. Write 0.666... as a fraction in simplest form.

3. Write 0.454545... as a fraction in simplest form.

4. Write 0.545454... as a fraction in simplest form.

5. Write 0.700700... as a fraction in simplest form.

6. Write 0.777... as a fraction in simplest form.

7. Write 0.909090... as a fraction in simplest form.

8. Write $0.444\ldots$ as a fraction in simplest form.

9. Write $0.333\ldots$ as a fraction in simplest form.

10. Write $0.181818\ldots$ as a fraction in simplest form.

11. Write $0.142857142857\ldots$ as a fraction in simplest form.

12. Write $0.3222\ldots$ as a fraction in simplest form.

13. Write $0.6666\ldots$ as a fraction in simplest form.

14. Is $\sqrt{9}$ rational or irrational?

15. Is $\sqrt{42}$ rational or irrational?

16. Is 0.16 rational or irrational?

Answer Key

Grade 8 Repeating Decimals as Fractions — Set C

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

7. $\frac{10}{11}$

13. $\frac{2}{3}$

2. $\frac{2}{3}$

8. $\frac{4}{9}$

14. rational

3. $\frac{5}{11}$

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

15. irrational

4. $\frac{6}{11}$

10. $\frac{2}{11}$

16. rational

5. $\frac{700}{999}$

11. $\frac{1}{7}$

6. $\frac{7}{9}$

12. $\frac{29}{90}$