

Grade 8 Repeating Decimals as Fractions

Fractions • Grade 8 • CCSS 8.NS.1

Name: _____

Date: _____

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

-
1. Write $0.777\ldots$ as a fraction in simplest form.

 2. Write $0.222\ldots$ as a fraction in simplest form.

 3. Write $0.454545\ldots$ as a fraction in simplest form.

 4. Write $0.818181\ldots$ as a fraction in simplest form.

 5. Write $0.123123\ldots$ as a fraction in simplest form.

 6. Write $0.555\ldots$ as a fraction in simplest form.

 7. Write $0.363636\ldots$ as a fraction in simplest form.

 8. Write $0.666\ldots$ as a fraction in simplest form.

 9. Write $0.111\ldots$ as a fraction in simplest form.

10. Write $0.272727\dots$ as a fraction in simplest form.

11. Write $0.428571428571\dots$ as a fraction in simplest form.

12. Write $0.1666\dots$ as a fraction in simplest form.

13. Write $0.8333\dots$ as a fraction in simplest form.

14. Is $\sqrt{16}$ rational or irrational?

15. Is $\sqrt{10}$ rational or irrational?

16. Is 0.25 rational or irrational?

Answer Key

Grade 8 Repeating Decimals as Fractions — Grade 8

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

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

13. $\frac{5}{6}$

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

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

14. rational

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

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

15. irrational

4. $\frac{9}{11}$

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

16. rational

5. $\frac{41}{333}$

11. $\frac{3}{7}$

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

12. $\frac{1}{6}$