

Grade 8 Repeating Decimals as Fractions

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

Name: _____

Date: _____

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

1. Write 0.333... as a fraction in simplest form.

2. Write 0.111... as a fraction in simplest form.

3. Write 0.181818... as a fraction in simplest form.

4. Write 0.818181... as a fraction in simplest form.

5. Write 0.197197... as a fraction in simplest form.

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

7. Write 0.272727... as a fraction in simplest form.

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

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

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

11. Write 0.285714285714... as a fraction in simplest form.

12. Write 0.2888... as a fraction in simplest form.

13. Write 0.3888... as a fraction in simplest form.

14. Is $\sqrt{100}$ rational or irrational?

15. Is $\sqrt{95}$ rational or irrational?

16. Is 0.91 rational or irrational?

Answer Key

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

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

13. $\frac{7}{18}$

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

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

14. rational

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

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

15. irrational

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

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

16. rational

5. $\frac{197}{999}$

11. $\frac{2}{7}$

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

12. $\frac{13}{45}$