



Rewrite each infinitely repeating decimal as a rational number (fraction).

Answers

1) $0.551\overline{35}$

2) $0.304\overline{1}$

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

3) $35.1\overline{39}$

4) $5.7\overline{4}$

5) $8.151\overline{51}$

6) $5.545\overline{9}$

7) $6.41\overline{32}$

8) $3.28\overline{9}$

9) $0.5\overline{31}$

10) $0.83\overline{1}$



Rewrite each infinitely repeating decimal as a rational number (fraction).

$$\begin{aligned}
 1) \quad & 0.55\overline{135} \\
 & f = 0.55\overline{135} \\
 & 100,000f = 55135.\overline{35} \\
 & - \quad 1,000f = 00551.\overline{35} \\
 \hline
 & 99000f = 54584 \\
 & f = \frac{54584}{99000}
 \end{aligned}$$

$$\begin{aligned}
 2) \quad & 0.30\overline{41} \\
 & f = 0.30\overline{41} \\
 & 10,000f = 3041.\overline{41} \\
 & - \quad 100f = 0030.\overline{41} \\
 \hline
 & 9900f = 3011 \\
 & f = \frac{3011}{9900}
 \end{aligned}$$

$$\begin{aligned}
 3) \quad & 35.\overline{139} \\
 & f = 35.\overline{139} \\
 & 1,000f = 35139.\overline{39} \\
 & - \quad 10f = 00351.\overline{39} \\
 \hline
 & 990f = 34788 \\
 & f = \frac{34788}{990}
 \end{aligned}$$

$$\begin{aligned}
 4) \quad & 5.\overline{74} \\
 & f = 5.\overline{74} \\
 & 100f = 574.\overline{4} \\
 & - \quad 10f = 057.\overline{4} \\
 \hline
 & 90f = 517 \\
 & f = \frac{517}{90}
 \end{aligned}$$

$$\begin{aligned}
 5) \quad & 8.15\overline{151} \\
 & f = 8.15\overline{151} \\
 & 100,000f = 815151.\overline{51} \\
 & - \quad 1,000f = 008151.\overline{51} \\
 \hline
 & 99000f = 807000 \\
 & f = \frac{807000}{99000}
 \end{aligned}$$

$$\begin{aligned}
 6) \quad & 5.54\overline{59} \\
 & f = 5.54\overline{59} \\
 & 10,000f = 55459.\overline{9} \\
 & - \quad 1,000f = 05546.\overline{9} \\
 \hline
 & 9000f = 49914 \\
 & f = \frac{49914}{9000}
 \end{aligned}$$

$$\begin{aligned}
 7) \quad & 6.41\overline{32} \\
 & f = 6.41\overline{32} \\
 & 10,000f = 64132.\overline{32} \\
 & - \quad 100f = 00641.\overline{32} \\
 \hline
 & 9900f = 63491 \\
 & f = \frac{63491}{9900}
 \end{aligned}$$

$$\begin{aligned}
 8) \quad & 3.28\overline{9} \\
 & f = 3.28\overline{9} \\
 & 1,000f = 3289.\overline{9} \\
 & - \quad 100f = 0329.\overline{9} \\
 \hline
 & 900f = 2961 \\
 & f = \frac{2961}{900}
 \end{aligned}$$

$$\begin{aligned}
 9) \quad & 0.5\overline{31} \\
 & f = 0.5\overline{31} \\
 & 1,000f = 531.\overline{31} \\
 & - \quad 10f = 005.\overline{31} \\
 \hline
 & 990f = 526 \\
 & f = \frac{526}{990}
 \end{aligned}$$

$$\begin{aligned}
 10) \quad & 0.8\overline{31} \\
 & f = 0.8\overline{31} \\
 & 1,000f = 831.\overline{1} \\
 & - \quad 100f = 083.\overline{1} \\
 \hline
 & 900f = 748 \\
 & f = \frac{748}{900}
 \end{aligned}$$

Answers

1. $\frac{54584}{99000}$
2. $\frac{3011}{9900}$
3. $\frac{34788}{990}$
4. $\frac{517}{90}$
5. $\frac{807000}{99000}$
6. $\frac{49914}{9000}$
7. $\frac{63491}{9900}$
8. $\frac{2961}{900}$
9. $\frac{526}{990}$
10. $\frac{748}{900}$