



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

Answers

1) $0.7\overline{50}$

2) $4.392\overline{59}$

1. _____

3) $0.60\overline{10}$

4) $9.96\overline{3}$

2. _____

3. _____

5) $9.40\overline{14}$

6) $23.3\overline{5}$

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

7) $0.462\overline{60}$

8) $6.98\overline{4}$

9) $0.10\overline{4}$

10) $5.817\overline{2}$



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

1) $0.7\overline{50}$

$$\begin{aligned} f &= 0.7\overline{50} \\ 1,000f &= 750.\overline{50} \\ - 10f &= 007.\overline{50} \\ \hline 990f &= 743 \\ f &= \frac{743}{990} \end{aligned}$$

2) $4.392\overline{59}$

$$\begin{aligned} f &= 4.392\overline{59} \\ 100,000f &= 439259.\overline{59} \\ - 1,000f &= 004392.\overline{59} \\ \hline 99000f &= 434867 \\ f &= \frac{434867}{99000} \end{aligned}$$

3) $0.60\overline{10}$

$$\begin{aligned} f &= 0.60\overline{10} \\ 10,000f &= 6010.\overline{10} \\ - 100f &= 0060.\overline{10} \\ \hline 9900f &= 5950 \\ f &= \frac{5950}{9900} \end{aligned}$$

4) $9.96\overline{3}$

$$\begin{aligned} f &= 9.96\overline{3} \\ 1,000f &= 9963.\overline{3} \\ - 100f &= 0996.\overline{3} \\ \hline 900f &= 8967 \\ f &= \frac{8967}{900} \end{aligned}$$

5) $9.40\overline{14}$

$$\begin{aligned} f &= 9.40\overline{14} \\ 10,000f &= 94014.\overline{14} \\ - 100f &= 00940.\overline{14} \\ \hline 9900f &= 93074 \\ f &= \frac{93074}{9900} \end{aligned}$$

6) $23.3\overline{5}$

$$\begin{aligned} f &= 23.3\overline{5} \\ 100f &= 2335.\overline{5} \\ - 10f &= 0233.\overline{5} \\ \hline 90f &= 2102 \\ f &= \frac{2102}{90} \end{aligned}$$

7) $0.462\overline{60}$

$$\begin{aligned} f &= 0.462\overline{60} \\ 100,000f &= 46260.\overline{60} \\ - 1,000f &= 00462.\overline{60} \\ \hline 99000f &= 45798 \\ f &= \frac{45798}{99000} \end{aligned}$$

8) $6.98\overline{4}$

$$\begin{aligned} f &= 6.98\overline{4} \\ 1,000f &= 6984.\overline{84} \\ - 10f &= 0069.\overline{84} \\ \hline 990f &= 6915 \\ f &= \frac{6915}{990} \end{aligned}$$

9) $0.10\overline{4}$

$$\begin{aligned} f &= 0.10\overline{4} \\ 1,000f &= 104.\overline{4} \\ - 100f &= 010.\overline{4} \\ \hline 900f &= 94 \\ f &= \frac{94}{900} \end{aligned}$$

10) $5.817\overline{2}$

$$\begin{aligned} f &= 5.817\overline{2} \\ 10,000f &= 58172.\overline{2} \\ - 1,000f &= 05817.\overline{2} \\ \hline 9000f &= 52355 \\ f &= \frac{52355}{9000} \end{aligned}$$

Answers

1. $\frac{743}{990}$

2. $\frac{434867}{99000}$

3. $\frac{5950}{9900}$

4. $\frac{8967}{900}$

5. $\frac{93074}{9900}$

6. $\frac{2102}{90}$

7. $\frac{45798}{99000}$

8. $\frac{6915}{990}$

9. $\frac{94}{900}$

10. $\frac{52355}{9000}$