



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

1) $7.1\overline{22}$

2) $9.9\overline{4}$

3) $0.52\overline{71}$

4) $0.669\overline{2}$

5) $1.243\overline{2}$

6) $1.591\overline{10}$

7) $23.2\overline{6}$

8) $0.41\overline{7}$

9) $1.45\overline{5}$

10) $0.7685\overline{1}$

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____



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

1) $7.1\overline{22}$

$$\begin{array}{r} f = 7.1\overline{22} \\ 1,000f = 7122.\overline{22} \\ - 10f = 0071.\overline{22} \\ \hline 990f = 7051 \end{array}$$

$$f = \frac{7051}{990}$$

2) $9.\overline{94}$

$$\begin{array}{r} f = 9.\overline{94} \\ 100f = 994.\overline{4} \\ - 10f = 099.\overline{4} \\ \hline 90f = 895 \end{array}$$

$$f = \frac{895}{90}$$

3) $0.52\overline{71}$

$$\begin{array}{r} f = 0.52\overline{71} \\ 10,000f = 5271.\overline{71} \\ - 100f = 0052.\overline{71} \\ \hline 9900f = 5219 \end{array}$$

$$f = \frac{5219}{9900}$$

4) $0.669\overline{2}$

$$\begin{array}{r} f = 0.669\overline{2} \\ 10,000f = 6692.\overline{2} \\ - 1,000f = 0669.\overline{2} \\ \hline 9000f = 6023 \end{array}$$

$$f = \frac{6023}{9000}$$

5) $1.243\overline{2}$

$$\begin{array}{r} f = 1.243\overline{2} \\ 10,000f = 12432.\overline{2} \\ - 1,000f = 01243.\overline{2} \\ \hline 9000f = 11189 \end{array}$$

$$f = \frac{11189}{9000}$$

6) $1.591\overline{10}$

$$\begin{array}{r} f = 1.591\overline{10} \\ 100,000f = 159110.\overline{10} \\ - 1,000f = 001591.\overline{10} \\ \hline 99000f = 157519 \end{array}$$

$$f = \frac{157519}{99000}$$

7) $23.2\overline{6}$

$$\begin{array}{r} f = 23.2\overline{6} \\ 100f = 2326.\overline{6} \\ - 10f = 0232.\overline{6} \\ \hline 90f = 2094 \end{array}$$

$$f = \frac{2094}{90}$$

8) $0.41\overline{7}$

$$\begin{array}{r} f = 0.41\overline{7} \\ 1,000f = 417.\overline{7} \\ - 100f = 041.\overline{7} \\ \hline 900f = 376 \end{array}$$

$$f = \frac{376}{900}$$

9) $1.45\overline{5}$

$$\begin{array}{r} f = 1.45\overline{5} \\ 1,000f = 1455.\overline{5} \\ - 100f = 0145.\overline{5} \\ \hline 900f = 1310 \end{array}$$

$$f = \frac{1310}{900}$$

10) $0.768\overline{51}$

$$\begin{array}{r} f = 0.768\overline{51} \\ 100,000f = 76851.\overline{51} \\ - 1,000f = 00768.\overline{51} \\ \hline 99000f = 76083 \end{array}$$

$$f = \frac{76083}{99000}$$

Answers

1. $\frac{7051}{990}$
2. $\frac{895}{90}$
3. $\frac{5219}{9900}$
4. $\frac{6023}{9000}$
5. $\frac{11189}{9000}$
6. $\frac{157519}{99000}$
7. $\frac{2094}{90}$
8. $\frac{376}{900}$
9. $\frac{1310}{900}$
10. $\frac{76083}{99000}$