



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

Answers

1) $9.298\bar{4}$

2) $3.61\bar{4}$

1. _____

3) $1.232\bar{16}$

4) $74.3\bar{35}$

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

5) $0.19\bar{6}$

6) $0.894\bar{30}$

9. _____

10. _____

7) $0.24\bar{55}$

8) $43.9\bar{1}$

9) $0.110\bar{6}$

10) $3.3\bar{10}$



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

$$\begin{aligned}
 1) \quad & 9.298\overline{4} \\
 & f = 9.298\overline{4} \\
 & 10,000f = 92984.\overline{4} \\
 & - 1,000f = 09298.\overline{4} \\
 \hline
 & 9000f = 83686 \\
 & f = \frac{83686}{9000}
 \end{aligned}$$

$$\begin{aligned}
 2) \quad & 3.61\overline{4} \\
 & f = 3.61\overline{4} \\
 & 1,000f = 3614.\overline{4} \\
 & - 100f = 0361.\overline{4} \\
 \hline
 & 900f = 3253 \\
 & f = \frac{3253}{900}
 \end{aligned}$$

$$\begin{aligned}
 3) \quad & 1.2321\overline{6} \\
 & f = 1.2321\overline{6} \\
 & 100,000f = 123216.\overline{16} \\
 & - 1,000f = 001232.\overline{16} \\
 \hline
 & 99000f = 121984 \\
 & f = \frac{121984}{99000}
 \end{aligned}$$

$$\begin{aligned}
 4) \quad & 74.3\overline{35} \\
 & f = 74.3\overline{35} \\
 & 1,000f = 74335.\overline{35} \\
 & - 10f = 00743.\overline{35} \\
 \hline
 & 990f = 73592 \\
 & f = \frac{73592}{990}
 \end{aligned}$$

$$\begin{aligned}
 5) \quad & 0.19\overline{6} \\
 & f = 0.19\overline{6} \\
 & 1,000f = 196.\overline{96} \\
 & - 10f = 001.9\overline{6} \\
 \hline
 & 990f = 195 \\
 & f = \frac{195}{990}
 \end{aligned}$$

$$\begin{aligned}
 6) \quad & 0.8943\overline{0} \\
 & f = 0.8943\overline{0} \\
 & 100,000f = 89430.\overline{30} \\
 & - 1,000f = 00894.\overline{30} \\
 \hline
 & 99000f = 88536 \\
 & f = \frac{88536}{99000}
 \end{aligned}$$

$$\begin{aligned}
 7) \quad & 0.245\overline{5} \\
 & f = 0.245\overline{5} \\
 & 10,000f = 2455.\overline{55} \\
 & - 100f = 0024.\overline{55} \\
 \hline
 & 9900f = 2431 \\
 & f = \frac{2431}{9900}
 \end{aligned}$$

$$\begin{aligned}
 8) \quad & 43.9\overline{1} \\
 & f = 43.9\overline{1} \\
 & 100f = 4391.\overline{1} \\
 & - 10f = 0439.\overline{1} \\
 \hline
 & 90f = 3952 \\
 & f = \frac{3952}{90}
 \end{aligned}$$

$$\begin{aligned}
 9) \quad & 0.110\overline{6} \\
 & f = 0.110\overline{6} \\
 & 10,000f = 1106.\overline{6} \\
 & - 1,000f = 0110.\overline{6} \\
 \hline
 & 9000f = 996 \\
 & f = \frac{996}{9000}
 \end{aligned}$$

$$\begin{aligned}
 10) \quad & 3.31\overline{0} \\
 & f = 3.31\overline{0} \\
 & 1,000f = 3310.\overline{10} \\
 & - 10f = 0033.\overline{10} \\
 \hline
 & 990f = 3277 \\
 & f = \frac{3277}{990}
 \end{aligned}$$

Answers

1. $\frac{83686}{9000}$
2. $\frac{3253}{900}$
3. $\frac{121984}{99000}$
4. $\frac{73592}{990}$
5. $\frac{195}{990}$
6. $\frac{88536}{99000}$
7. $\frac{2431}{9900}$
8. $\frac{3952}{90}$
9. $\frac{996}{9000}$
10. $\frac{3277}{990}$