



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

Answers

1) $43.\overline{355}$

2) $0.81\overline{50}$

1. _____

3) $2.604\overline{6}$

4) $1.69\overline{8}$

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

5) $0.3\overline{20}$

6) $7.5\overline{9}$

9. _____

10. _____

7) $0.62\overline{9}$

8) $1.910\overline{36}$

9) $23.\overline{38}$

10) $0.581\overline{2}$



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

$$\begin{aligned}
 1) \quad & 43.\overline{355} \\
 & f = 43.\overline{355} \\
 & 1,000f = 43355.\overline{55} \\
 & - \quad 10f = 00433.\overline{55} \\
 \hline
 & 990f = 42922 \\
 & f = \frac{42922}{990}
 \end{aligned}$$

$$\begin{aligned}
 2) \quad & 0.81\overline{50} \\
 & f = 0.81\overline{50} \\
 & 10,000f = 8150.\overline{50} \\
 & - \quad 100f = 0081.\overline{50} \\
 \hline
 & 9900f = 8069 \\
 & f = \frac{8069}{9900}
 \end{aligned}$$

$$\begin{aligned}
 3) \quad & 2.604\overline{6} \\
 & f = 2.604\overline{6} \\
 & 10,000f = 26046.\overline{6} \\
 & - \quad 1,000f = 02604.\overline{6} \\
 \hline
 & 9000f = 23442 \\
 & f = \frac{23442}{9000}
 \end{aligned}$$

$$\begin{aligned}
 4) \quad & 1.69\overline{8} \\
 & f = 1.69\overline{8} \\
 & 1,000f = 1698.\overline{8} \\
 & - \quad 100f = 0169.\overline{8} \\
 \hline
 & 900f = 1529 \\
 & f = \frac{1529}{900}
 \end{aligned}$$

$$\begin{aligned}
 5) \quad & 0.3\overline{20} \\
 & f = 0.3\overline{20} \\
 & 1,000f = 320.\overline{20} \\
 & - \quad 10f = 003.\overline{20} \\
 \hline
 & 990f = 317 \\
 & f = \frac{317}{990}
 \end{aligned}$$

$$\begin{aligned}
 6) \quad & 7.5\overline{9} \\
 & f = 7.5\overline{9} \\
 & 100f = 759.\overline{9} \\
 & - \quad 10f = 076.\overline{9} \\
 \hline
 & 90f = 684 \\
 & f = \frac{684}{90}
 \end{aligned}$$

$$\begin{aligned}
 7) \quad & 0.62\overline{9} \\
 & f = 0.62\overline{9} \\
 & 1,000f = 629.\overline{9} \\
 & - \quad 100f = 063.\overline{9} \\
 \hline
 & 900f = 567 \\
 & f = \frac{567}{900}
 \end{aligned}$$

$$\begin{aligned}
 8) \quad & 1.910\overline{36} \\
 & f = 1.910\overline{36} \\
 & 100,000f = 191036.\overline{36} \\
 & - \quad 1,000f = 001910.\overline{36} \\
 \hline
 & 99000f = 189126 \\
 & f = \frac{189126}{99000}
 \end{aligned}$$

$$\begin{aligned}
 9) \quad & 23.3\overline{8} \\
 & f = 23.3\overline{8} \\
 & 100f = 2338.\overline{8} \\
 & - \quad 10f = 0233.\overline{8} \\
 \hline
 & 90f = 2105 \\
 & f = \frac{2105}{90}
 \end{aligned}$$

$$\begin{aligned}
 10) \quad & 0.581\overline{2} \\
 & f = 0.581\overline{2} \\
 & 10,000f = 5812.\overline{2} \\
 & - \quad 1,000f = 0581.\overline{2} \\
 \hline
 & 9000f = 5231 \\
 & f = \frac{5231}{9000}
 \end{aligned}$$

Answers

1. $\frac{42922}{990}$
2. $\frac{8069}{9900}$
3. $\frac{23442}{9000}$
4. $\frac{1529}{900}$
5. $\frac{317}{990}$
6. $\frac{684}{90}$
7. $\frac{567}{900}$
8. $\frac{189126}{99000}$
9. $\frac{2105}{90}$
10. $\frac{5231}{9000}$