



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

Answers

1) $0.9\overline{77}$

2) $2.5\overline{6}$

1. _____

3) $9.5\overline{11}$

4) $0.907\overline{56}$

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

5) $0.92\overline{6}$

6) $8.34\overline{4}$

9. _____

10. _____

7) $8.606\overline{32}$

8) $3.955\overline{4}$

9) $5.728\overline{8}$

10) $68.5\overline{4}$



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

$$\begin{aligned}
 1) \quad & 0.9\overline{77} \\
 & f = 0.9\overline{77} \\
 & 1,000f = 977.\overline{77} \\
 & - \quad 10f = 009.\overline{77} \\
 \hline
 & 990f = 968 \\
 & f = \frac{968}{990}
 \end{aligned}$$

$$\begin{aligned}
 2) \quad & 2.5\overline{6} \\
 & f = 2.5\overline{6} \\
 & 100f = 256.\overline{6} \\
 & - \quad 10f = 025.\overline{6} \\
 \hline
 & 90f = 231 \\
 & f = \frac{231}{90}
 \end{aligned}$$

$$\begin{aligned}
 3) \quad & 9.5\overline{11} \\
 & f = 9.5\overline{11} \\
 & 1,000f = 9511.\overline{11} \\
 & - \quad 10f = 0095.\overline{11} \\
 \hline
 & 990f = 9416 \\
 & f = \frac{9416}{990}
 \end{aligned}$$

$$\begin{aligned}
 4) \quad & 0.907\overline{56} \\
 & f = 0.907\overline{56} \\
 & 100,000f = 90756.\overline{56} \\
 & - \quad 1,000f = 00907.\overline{56} \\
 \hline
 & 99000f = 89849 \\
 & f = \frac{89849}{99000}
 \end{aligned}$$

$$\begin{aligned}
 5) \quad & 0.92\overline{6} \\
 & f = 0.92\overline{6} \\
 & 1,000f = 926.\overline{6} \\
 & - \quad 100f = 092.\overline{6} \\
 \hline
 & 900f = 834 \\
 & f = \frac{834}{900}
 \end{aligned}$$

$$\begin{aligned}
 6) \quad & 8.34\overline{4} \\
 & f = 8.34\overline{4} \\
 & 1,000f = 8344.\overline{4} \\
 & - \quad 100f = 0834.\overline{4} \\
 \hline
 & 900f = 7510 \\
 & f = \frac{7510}{900}
 \end{aligned}$$

$$\begin{aligned}
 7) \quad & 8.606\overline{32} \\
 & f = 8.606\overline{32} \\
 & 100,000f = 860632.\overline{32} \\
 & - \quad 1,000f = 008606.\overline{32} \\
 \hline
 & 99000f = 852026 \\
 & f = \frac{852026}{99000}
 \end{aligned}$$

$$\begin{aligned}
 8) \quad & 3.95\overline{54} \\
 & f = 3.95\overline{54} \\
 & 10,000f = 39554.\overline{54} \\
 & - \quad 100f = 00395.\overline{54} \\
 \hline
 & 9900f = 39159 \\
 & f = \frac{39159}{9900}
 \end{aligned}$$

$$\begin{aligned}
 9) \quad & 5.728\overline{8} \\
 & f = 5.728\overline{8} \\
 & 10,000f = 57288.\overline{8} \\
 & - \quad 1,000f = 05728.\overline{8} \\
 \hline
 & 9000f = 51560 \\
 & f = \frac{51560}{9000}
 \end{aligned}$$

$$\begin{aligned}
 10) \quad & 68.5\overline{4} \\
 & f = 68.5\overline{4} \\
 & 100f = 6854.\overline{4} \\
 & - \quad 10f = 0685.\overline{4} \\
 \hline
 & 90f = 6169 \\
 & f = \frac{6169}{90}
 \end{aligned}$$

Answers

1. $\frac{968}{990}$
2. $\frac{231}{90}$
3. $\frac{9416}{990}$
4. $\frac{89849}{99000}$
5. $\frac{834}{900}$
6. $\frac{7510}{900}$
7. $\frac{852026}{99000}$
8. $\frac{39159}{9900}$
9. $\frac{51560}{9000}$
10. $\frac{6169}{90}$