



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) $3.95\overline{54}$

9) $5.728\overline{8}$

10) $68.5\overline{4}$



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

1) $0.9\overline{77}$

$$\begin{aligned} f &= 0.9\overline{77} \\ 1,000f &= 977.\overline{77} \\ - 10f &= 09.\overline{77} \\ \hline 990f &= 968 \\ f &= \frac{968}{990} \end{aligned}$$

2) $2.5\overline{6}$

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

3) $9.5\overline{11}$

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

4) $0.907\overline{56}$

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

5) $0.92\overline{6}$

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

6) $8.34\overline{4}$

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

7) $8.606\overline{32}$

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

8) $3.95\overline{54}$

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

9) $5.728\overline{8}$

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

10) $68.5\overline{4}$

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

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. $\frac{6169}{90}$