



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.  $\frac{6169}{90}$