



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

1)  $0.728\overline{10}$

2)  $0.5\overline{66}$

3)  $1.9\overline{4}$

4)  $0.75\overline{1}$

5)  $9.305\overline{34}$

6)  $0.309\overline{4}$

7)  $47.\overline{75}$

8)  $54.19\overline{1}$

9)  $1.728\overline{6}$

10)  $5.98\overline{6}$

**Answers**

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

7. \_\_\_\_\_

8. \_\_\_\_\_

9. \_\_\_\_\_

10. \_\_\_\_\_



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

1)  $0.728\overline{10}$

$$\begin{aligned} f &= 0.728\overline{10} \\ 100,000f &= 72810.\overline{10} \\ - 1,000f &= 00728.\overline{10} \\ \hline 99000f &= 72082 \end{aligned}$$

$$f = \frac{72082}{99000}$$

2)  $0.5\overline{66}$

$$\begin{aligned} f &= 0.5\overline{66} \\ 1,000f &= 566.\overline{66} \\ - 10f &= 005.\overline{66} \\ \hline 990f &= 561 \end{aligned}$$

$$f = \frac{561}{990}$$

3)  $1.9\overline{4}$

$$\begin{aligned} f &= 1.9\overline{4} \\ 100f &= 194.\overline{4} \\ - 10f &= 019.\overline{4} \\ \hline 90f &= 175 \end{aligned}$$

$$f = \frac{175}{90}$$

4)  $0.75\overline{1}$

$$\begin{aligned} f &= 0.75\overline{1} \\ 1,000f &= 751.\overline{1} \\ - 100f &= 075.\overline{1} \\ \hline 900f &= 676 \end{aligned}$$

$$f = \frac{676}{900}$$

5)  $9.305\overline{34}$

$$\begin{aligned} f &= 9.305\overline{34} \\ 100,000f &= 930534.\overline{34} \\ - 1,000f &= 009305.\overline{34} \\ \hline 99000f &= 921229 \end{aligned}$$

$$f = \frac{921229}{99000}$$

6)  $0.309\overline{4}$

$$\begin{aligned} f &= 0.309\overline{4} \\ 10,000f &= 3094.\overline{4} \\ - 1,000f &= 0309.\overline{4} \\ \hline 9000f &= 2785 \end{aligned}$$

$$f = \frac{2785}{9000}$$

7)  $47.7\overline{5}$

$$\begin{aligned} f &= 47.7\overline{5} \\ 100f &= 4775.\overline{5} \\ - 10f &= 0477.\overline{5} \\ \hline 90f &= 4298 \end{aligned}$$

$$f = \frac{4298}{90}$$

8)  $54.19\overline{1}$

$$\begin{aligned} f &= 54.19\overline{1} \\ 1,000f &= 54191.\overline{91} \\ - 10f &= 00541.\overline{91} \\ \hline 990f &= 53650 \end{aligned}$$

$$f = \frac{53650}{990}$$

9)  $1.728\overline{6}$

$$\begin{aligned} f &= 1.728\overline{6} \\ 10,000f &= 17286.\overline{6} \\ - 1,000f &= 01728.\overline{6} \\ \hline 9000f &= 15558 \end{aligned}$$

$$f = \frac{15558}{9000}$$

10)  $5.98\overline{6}$

$$\begin{aligned} f &= 5.98\overline{6} \\ 1,000f &= 5986.\overline{86} \\ - 10f &= 0059.\overline{86} \\ \hline 990f &= 5927 \end{aligned}$$

$$f = \frac{5927}{990}$$

**Answers**

1.  $\frac{72082}{99000}$
2.  $\frac{561}{990}$
3.  $\frac{175}{90}$
4.  $\frac{676}{900}$
5.  $\frac{921229}{99000}$
6.  $\frac{2785}{9000}$
7.  $\frac{4298}{90}$
8.  $\frac{53650}{990}$
9.  $\frac{15558}{9000}$
10.  $\frac{5927}{990}$