



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

Answers

1) $1.88\overline{32}$

2) $0.38\overline{71}$

1. _____

2. _____

3) $29.6\overline{15}$

4) $80.3\overline{1}$

3. _____

4. _____

5) $4.9\overline{6}$

6) $0.272\overline{82}$

5. _____

6. _____

7) $0.92\overline{3}$

8) $6.92\overline{6}$

7. _____

8. _____

9) $9.309\overline{73}$

10) $0.699\overline{3}$

9. _____

10. _____



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

$$\begin{aligned}
 &1) \quad 1.88\overline{32} \\
 &f = 1.88\overline{32} \\
 &\quad 10,000f = 18832.\overline{32} \\
 &\quad - \quad 100f = 00188.\overline{32} \\
 &\quad \hline
 &\quad 9900f = 18644 \\
 &f = \frac{18644}{9900}
 \end{aligned}$$

$$\begin{aligned}
 &2) \quad 0.38\overline{71} \\
 &f = 0.38\overline{71} \\
 &\quad 10,000f = 3871.\overline{71} \\
 &\quad - \quad 100f = 0038.\overline{71} \\
 &\quad \hline
 &\quad 9900f = 3833 \\
 &f = \frac{3833}{9900}
 \end{aligned}$$

$$\begin{aligned}
 &3) \quad 29.6\overline{15} \\
 &f = 29.6\overline{15} \\
 &\quad 1,000f = 29615.\overline{15} \\
 &\quad - \quad 10f = 00296.\overline{15} \\
 &\quad \hline
 &\quad 990f = 29319 \\
 &f = \frac{29319}{990}
 \end{aligned}$$

$$\begin{aligned}
 &4) \quad 80.3\overline{1} \\
 &f = 80.3\overline{1} \\
 &\quad 100f = 8031.\overline{1} \\
 &\quad - \quad 10f = 0803.\overline{1} \\
 &\quad \hline
 &\quad 90f = 7228 \\
 &f = \frac{7228}{90}
 \end{aligned}$$

$$\begin{aligned}
 &5) \quad 4.9\overline{6} \\
 &f = 4.9\overline{6} \\
 &\quad 100f = 496.\overline{6} \\
 &\quad - \quad 10f = 049.\overline{6} \\
 &\quad \hline
 &\quad 90f = 447 \\
 &f = \frac{447}{90}
 \end{aligned}$$

$$\begin{aligned}
 &6) \quad 0.272\overline{82} \\
 &f = 0.272\overline{82} \\
 &\quad 100,000f = 27282.\overline{82} \\
 &\quad - \quad 1,000f = 00272.\overline{82} \\
 &\quad \hline
 &\quad 99000f = 27010 \\
 &f = \frac{27010}{99000}
 \end{aligned}$$

$$\begin{aligned}
 &7) \quad 0.92\overline{3} \\
 &f = 0.92\overline{3} \\
 &\quad 1,000f = 923.\overline{3} \\
 &\quad - \quad 100f = 092.\overline{3} \\
 &\quad \hline
 &\quad 900f = 831 \\
 &f = \frac{831}{900}
 \end{aligned}$$

$$\begin{aligned}
 &8) \quad 6.92\overline{6} \\
 &f = 6.92\overline{6} \\
 &\quad 1,000f = 6926.\overline{26} \\
 &\quad - \quad 10f = 0069.\overline{26} \\
 &\quad \hline
 &\quad 990f = 6857 \\
 &f = \frac{6857}{990}
 \end{aligned}$$

$$\begin{aligned}
 &9) \quad 9.309\overline{73} \\
 &f = 9.309\overline{73} \\
 &\quad 100,000f = 930973.\overline{73} \\
 &\quad - \quad 1,000f = 009309.\overline{73} \\
 &\quad \hline
 &\quad 99000f = 921664 \\
 &f = \frac{921664}{99000}
 \end{aligned}$$

$$\begin{aligned}
 &10) \quad 0.699\overline{3} \\
 &f = 0.699\overline{3} \\
 &\quad 10,000f = 6993.\overline{3} \\
 &\quad - \quad 1,000f = 0699.\overline{3} \\
 &\quad \hline
 &\quad 9000f = 6294 \\
 &f = \frac{6294}{9000}
 \end{aligned}$$

Answers

1. $\frac{18644}{9900}$
2. $\frac{3833}{9900}$
3. $\frac{29319}{990}$
4. $\frac{7228}{90}$
5. $\frac{447}{90}$
6. $\frac{27010}{99000}$
7. $\frac{831}{900}$
8. $\frac{6857}{990}$
9. $\frac{921664}{99000}$
10. $\frac{6294}{9000}$