



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

1) $0.59\overline{2}$

2) $0.12\overline{79}$

3) $75.2\overline{5}$

4) $9.264\overline{6}$

5) $3.63\overline{6}$

6) $0.35\overline{1}$

7) $7.58\overline{6}$

8) $6.1\overline{6}$

9) $82.33\overline{0}$

10) $3.880\overline{8}$

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____



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

1) $0.5\overline{92}$

$$\begin{aligned} f &= 0.5\overline{92} \\ 1,000f &= 592.\overline{92} \\ - 10f &= 005.\overline{92} \\ \hline 990f &= 587 \\ f &= \frac{587}{990} \end{aligned}$$

2) $0.12\overline{79}$

$$\begin{aligned} f &= 0.12\overline{79} \\ 10,000f &= 1279.\overline{79} \\ - 100f &= 0012.\overline{79} \\ \hline 9900f &= 1267 \\ f &= \frac{1267}{9900} \end{aligned}$$

3) $75.2\overline{5}$

$$\begin{aligned} f &= 75.2\overline{5} \\ 100f &= 7525.\overline{5} \\ - 10f &= 0752.\overline{5} \\ \hline 90f &= 6773 \\ f &= \frac{6773}{90} \end{aligned}$$

4) $9.264\overline{6}$

$$\begin{aligned} f &= 9.264\overline{6} \\ 10,000f &= 92646.\overline{46} \\ - 100f &= 00926.\overline{46} \\ \hline 9900f &= 91720 \\ f &= \frac{91720}{9900} \end{aligned}$$

5) $3.63\overline{6}$

$$\begin{aligned} f &= 3.63\overline{6} \\ 1,000f &= 3636.\overline{6} \\ - 100f &= 0363.\overline{6} \\ \hline 900f &= 3273 \\ f &= \frac{3273}{900} \end{aligned}$$

6) $0.35\overline{1}$

$$\begin{aligned} f &= 0.35\overline{1} \\ 1,000f &= 351.\overline{1} \\ - 100f &= 035.\overline{1} \\ \hline 900f &= 316 \\ f &= \frac{316}{900} \end{aligned}$$

7) $7.58\overline{6}$

$$\begin{aligned} f &= 7.58\overline{6} \\ 1,000f &= 7586.\overline{86} \\ - 10f &= 0075.\overline{86} \\ \hline 990f &= 7511 \\ f &= \frac{7511}{990} \end{aligned}$$

8) $6.1\overline{6}$

$$\begin{aligned} f &= 6.1\overline{6} \\ 100f &= 616.\overline{6} \\ - 10f &= 061.\overline{6} \\ \hline 90f &= 555 \\ f &= \frac{555}{90} \end{aligned}$$

9) $82.33\overline{0}$

$$\begin{aligned} f &= 82.33\overline{0} \\ 1,000f &= 82330.\overline{30} \\ - 10f &= 00823.\overline{30} \\ \hline 990f &= 81507 \\ f &= \frac{81507}{990} \end{aligned}$$

10) $3.880\overline{8}$

$$\begin{aligned} f &= 3.880\overline{8} \\ 10,000f &= 38808.\overline{8} \\ - 1,000f &= 03880.\overline{8} \\ \hline 9000f &= 34928 \\ f &= \frac{34928}{9000} \end{aligned}$$

Answers

1. $\frac{587}{990}$
2. $\frac{1267}{9900}$
3. $\frac{6773}{90}$
4. $\frac{91720}{9900}$
5. $\frac{3273}{900}$
6. $\frac{316}{900}$
7. $\frac{7511}{990}$
8. $\frac{555}{90}$
9. $\frac{81507}{990}$
10. $\frac{34928}{9000}$