



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

Answers

1) $6.2\bar{9}$

2) $0.75\bar{2}$

1. _____

3) $0.393\bar{2}$

4) $68.4\bar{33}$

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

5) $6.48\bar{39}$

6) $21.7\bar{8}$

9. _____

10. _____

7) $3.530\bar{9}$

8) $1.837\bar{79}$

9) $7.92\bar{8}$

10) $3.7\bar{30}$



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

1) $6.2\bar{9}$

$$\begin{aligned} f &= 6.2\bar{9} \\ 100f &= 629.\bar{9} \\ - 10f &= 063.\bar{9} \\ \hline 90f &= 567 \\ f &= \frac{567}{90} \end{aligned}$$

2) $0.75\bar{2}$

$$\begin{aligned} f &= 0.75\bar{2} \\ 1,000f &= 752.\bar{2} \\ - 100f &= 075.\bar{2} \\ \hline 900f &= 677 \\ f &= \frac{677}{900} \end{aligned}$$

3) $0.393\bar{2}$

$$\begin{aligned} f &= 0.393\bar{2} \\ 10,000f &= 3932.\bar{2} \\ - 1,000f &= 0393.\bar{2} \\ \hline 9000f &= 3539 \\ f &= \frac{3539}{9000} \end{aligned}$$

4) $68.4\bar{33}$

$$\begin{aligned} f &= 68.4\bar{33} \\ 1,000f &= 68433.\bar{33} \\ - 10f &= 00684.\bar{33} \\ \hline 990f &= 67749 \\ f &= \frac{67749}{990} \end{aligned}$$

5) $6.48\bar{39}$

$$\begin{aligned} f &= 6.48\bar{39} \\ 10,000f &= 64839.\bar{39} \\ - 100f &= 00648.\bar{39} \\ \hline 9900f &= 64191 \\ f &= \frac{64191}{9900} \end{aligned}$$

6) $21.7\bar{8}$

$$\begin{aligned} f &= 21.7\bar{8} \\ 100f &= 2178.\bar{8} \\ - 10f &= 0217.\bar{8} \\ \hline 90f &= 1961 \\ f &= \frac{1961}{90} \end{aligned}$$

7) $3.530\bar{9}$

$$\begin{aligned} f &= 3.530\bar{9} \\ 10,000f &= 35309.\bar{9} \\ - 1,000f &= 03531.\bar{9} \\ \hline 9000f &= 31779 \\ f &= \frac{31779}{9000} \end{aligned}$$

8) $1.837\bar{79}$

$$\begin{aligned} f &= 1.837\bar{79} \\ 100,000f &= 183779.\bar{79} \\ - 1,000f &= 001837.\bar{79} \\ \hline 99000f &= 181942 \\ f &= \frac{181942}{99000} \end{aligned}$$

9) $7.92\bar{8}$

$$\begin{aligned} f &= 7.92\bar{8} \\ 1,000f &= 7928.\bar{8} \\ - 100f &= 0792.\bar{8} \\ \hline 900f &= 7136 \\ f &= \frac{7136}{900} \end{aligned}$$

10) $3.7\bar{30}$

$$\begin{aligned} f &= 3.7\bar{30} \\ 1,000f &= 3730.\bar{30} \\ - 10f &= 0037.\bar{30} \\ \hline 990f &= 3693 \\ f &= \frac{3693}{990} \end{aligned}$$

Answers

1. $\frac{567}{90}$
2. $\frac{677}{900}$
3. $\frac{3539}{9000}$
4. $\frac{67749}{990}$
5. $\frac{64191}{9900}$
6. $\frac{1961}{90}$
7. $\frac{31779}{9000}$
8. $\frac{181942}{99000}$
9. $\frac{7136}{900}$
10. $\frac{3693}{990}$