



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

1) $0.674\overline{55}$

2) $0.34\overline{14}$

3) $3.964\overline{58}$

4) $2.9\overline{7}$

5) $7.664\overline{2}$

6) $7.8\overline{10}$

7) $44.8\overline{4}$

8) $0.82\overline{4}$

9) $1.728\overline{4}$

10) $0.9\overline{33}$

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____



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

1) $0.674\overline{55}$

$$\begin{array}{r} f = 0.674\overline{55} \\ 100,000f = 67455.\overline{55} \\ - 1,000f = 00674.\overline{55} \\ \hline 99000f = 66781 \end{array}$$

$$f = \frac{66781}{99000}$$

2) $0.34\overline{14}$

$$\begin{array}{r} f = 0.34\overline{14} \\ 10,000f = 3414.\overline{14} \\ - 100f = 0034.\overline{14} \\ \hline 9900f = 3380 \end{array}$$

$$f = \frac{3380}{9900}$$

3) $3.964\overline{58}$

$$\begin{array}{r} f = 3.964\overline{58} \\ 100,000f = 396458.\overline{58} \\ - 1,000f = 003964.\overline{58} \\ \hline 99000f = 392494 \end{array}$$

$$f = \frac{392494}{99000}$$

4) $2.9\overline{7}$

$$\begin{array}{r} f = 2.9\overline{7} \\ 100f = 297.\overline{7} \\ - 10f = 029.\overline{7} \\ \hline 90f = 268 \end{array}$$

$$f = \frac{268}{90}$$

5) $7.664\overline{2}$

$$\begin{array}{r} f = 7.664\overline{2} \\ 10,000f = 76642.\overline{2} \\ - 1,000f = 07664.\overline{2} \\ \hline 9000f = 68978 \end{array}$$

$$f = \frac{68978}{9000}$$

6) $7.8\overline{10}$

$$\begin{array}{r} f = 7.8\overline{10} \\ 1,000f = 7810.\overline{10} \\ - 10f = 0078.\overline{10} \\ \hline 990f = 7732 \end{array}$$

$$f = \frac{7732}{990}$$

7) $44.8\overline{4}$

$$\begin{array}{r} f = 44.8\overline{4} \\ 100f = 4484.\overline{4} \\ - 10f = 0448.\overline{4} \\ \hline 90f = 4036 \end{array}$$

$$f = \frac{4036}{90}$$

8) $0.82\overline{4}$

$$\begin{array}{r} f = 0.82\overline{4} \\ 1,000f = 824.\overline{4} \\ - 100f = 082.\overline{4} \\ \hline 900f = 742 \end{array}$$

$$f = \frac{742}{900}$$

9) $1.728\overline{4}$

$$\begin{array}{r} f = 1.728\overline{4} \\ 10,000f = 17284.\overline{4} \\ - 100f = 00172.\overline{4} \\ \hline 9900f = 17112 \end{array}$$

$$f = \frac{17112}{9900}$$

10) $0.9\overline{33}$

$$\begin{array}{r} f = 0.9\overline{33} \\ 1,000f = 933.\overline{33} \\ - 10f = 009.\overline{33} \\ \hline 990f = 924 \end{array}$$

$$f = \frac{924}{990}$$

Answers

1. $\frac{66781}{99000}$
2. $\frac{3380}{9900}$
3. $\frac{392494}{99000}$
4. $\frac{268}{90}$
5. $\frac{68978}{9000}$
6. $\frac{7732}{990}$
7. $\frac{4036}{90}$
8. $\frac{742}{900}$
9. $\frac{17112}{9900}$
10. $\frac{924}{990}$