



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

Answers

1) $7.641\bar{5}$

2) $5.8\bar{34}$

1. _____

3) $4.950\bar{37}$

4) $0.574\bar{9}$

2. _____

3. _____

5) $7.2\bar{1}$

6) $44.4\bar{9}$

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

7) $2.96\bar{7}$

8) $0.368\bar{34}$

9) $0.24\bar{11}$

10) $0.53\bar{8}$



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

$$\begin{aligned}
 1) \quad & 7.641\overline{5} \\
 & f = 7.641\overline{5} \\
 & 10,000f = 76415.\overline{5} \\
 & - 1,000f = 07641.\overline{5} \\
 \hline
 & 9000f = 68774 \\
 & f = \frac{68774}{9000}
 \end{aligned}$$

$$\begin{aligned}
 2) \quad & 5.8\overline{34} \\
 & f = 5.8\overline{34} \\
 & 1,000f = 5834.\overline{34} \\
 & - 10f = 0058.\overline{34} \\
 \hline
 & 990f = 5776 \\
 & f = \frac{5776}{990}
 \end{aligned}$$

$$\begin{aligned}
 3) \quad & 4.950\overline{37} \\
 & f = 4.950\overline{37} \\
 & 100,000f = 495037.\overline{37} \\
 & - 1,000f = 004950.\overline{37} \\
 \hline
 & 99000f = 490087 \\
 & f = \frac{490087}{99000}
 \end{aligned}$$

$$\begin{aligned}
 4) \quad & 0.574\overline{9} \\
 & f = 0.574\overline{9} \\
 & 10,000f = 5749.\overline{9} \\
 & - 1,000f = 0575.\overline{9} \\
 \hline
 & 9000f = 5175 \\
 & f = \frac{5175}{9000}
 \end{aligned}$$

$$\begin{aligned}
 5) \quad & 7.2\overline{1} \\
 & f = 7.2\overline{1} \\
 & 100f = 721.\overline{1} \\
 & - 10f = 072.\overline{1} \\
 \hline
 & 90f = 649 \\
 & f = \frac{649}{90}
 \end{aligned}$$

$$\begin{aligned}
 6) \quad & 44.4\overline{9} \\
 & f = 44.4\overline{9} \\
 & 100f = 4449.\overline{9} \\
 & - 10f = 0445.\overline{9} \\
 \hline
 & 90f = 4005 \\
 & f = \frac{4005}{90}
 \end{aligned}$$

$$\begin{aligned}
 7) \quad & 2.96\overline{7} \\
 & f = 2.96\overline{7} \\
 & 1,000f = 2967.\overline{7} \\
 & - 100f = 0296.\overline{7} \\
 \hline
 & 900f = 2671 \\
 & f = \frac{2671}{900}
 \end{aligned}$$

$$\begin{aligned}
 8) \quad & 0.368\overline{34} \\
 & f = 0.368\overline{34} \\
 & 100,000f = 36834.\overline{34} \\
 & - 1,000f = 00368.\overline{34} \\
 \hline
 & 99000f = 36466 \\
 & f = \frac{36466}{99000}
 \end{aligned}$$

$$\begin{aligned}
 9) \quad & 0.241\overline{1} \\
 & f = 0.241\overline{1} \\
 & 10,000f = 2411.\overline{11} \\
 & - 100f = 0024.\overline{11} \\
 \hline
 & 9900f = 2387 \\
 & f = \frac{2387}{9900}
 \end{aligned}$$

$$\begin{aligned}
 10) \quad & 0.5\overline{38} \\
 & f = 0.5\overline{38} \\
 & 1,000f = 538.\overline{8} \\
 & - 100f = 053.\overline{8} \\
 \hline
 & 900f = 485 \\
 & f = \frac{485}{900}
 \end{aligned}$$

Answers

1. $\frac{68774}{9000}$
2. $\frac{5776}{990}$
3. $\frac{490087}{99000}$
4. $\frac{5175}{9000}$
5. $\frac{649}{90}$
6. $\frac{4005}{90}$
7. $\frac{2671}{900}$
8. $\frac{36466}{99000}$
9. $\frac{2387}{9900}$
10. $\frac{485}{900}$