



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

Answers

1) $0.551\overline{35}$

2) $0.30\overline{41}$

1. _____

3) $35.1\overline{39}$

4) $5.7\overline{4}$

2. _____

3. _____

5) $8.151\overline{51}$

6) $5.545\overline{9}$

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

7) $6.41\overline{32}$

8) $3.28\overline{9}$

9) $0.5\overline{31}$

10) $0.83\overline{1}$



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

$$\begin{aligned}
 1) \quad & 0.551\overline{35} \\
 & f = 0.551\overline{35} \\
 & 100,000f = 55135.\overline{35} \\
 & - \quad 1,000f = 00551.\overline{35} \\
 \hline
 & 99000f = 54584 \\
 & f = \frac{54584}{99000}
 \end{aligned}$$

$$\begin{aligned}
 2) \quad & 0.30\overline{41} \\
 & f = 0.30\overline{41} \\
 & 10,000f = 3041.\overline{41} \\
 & - \quad 100f = 0030.\overline{41} \\
 \hline
 & 9900f = 3011 \\
 & f = \frac{3011}{9900}
 \end{aligned}$$

$$\begin{aligned}
 3) \quad & 35.1\overline{39} \\
 & f = 35.1\overline{39} \\
 & 1,000f = 35139.\overline{39} \\
 & - \quad 10f = 00351.\overline{39} \\
 \hline
 & 990f = 34788 \\
 & f = \frac{34788}{990}
 \end{aligned}$$

$$\begin{aligned}
 4) \quad & 5.7\overline{4} \\
 & f = 5.7\overline{4} \\
 & 100f = 574.\overline{4} \\
 & - \quad 10f = 057.\overline{4} \\
 \hline
 & 90f = 517 \\
 & f = \frac{517}{90}
 \end{aligned}$$

$$\begin{aligned}
 5) \quad & 8.151\overline{51} \\
 & f = 8.151\overline{51} \\
 & 100,000f = 815151.\overline{51} \\
 & - \quad 1,000f = 008151.\overline{51} \\
 \hline
 & 99000f = 807000 \\
 & f = \frac{807000}{99000}
 \end{aligned}$$

$$\begin{aligned}
 6) \quad & 5.545\overline{9} \\
 & f = 5.545\overline{9} \\
 & 10,000f = 55459.\overline{9} \\
 & - \quad 1,000f = 05546.\overline{9} \\
 \hline
 & 9000f = 49914 \\
 & f = \frac{49914}{9000}
 \end{aligned}$$

$$\begin{aligned}
 7) \quad & 6.41\overline{32} \\
 & f = 6.41\overline{32} \\
 & 10,000f = 64132.\overline{32} \\
 & - \quad 100f = 00641.\overline{32} \\
 \hline
 & 9900f = 63491 \\
 & f = \frac{63491}{9900}
 \end{aligned}$$

$$\begin{aligned}
 8) \quad & 3.28\overline{9} \\
 & f = 3.28\overline{9} \\
 & 1,000f = 3289.\overline{9} \\
 & - \quad 100f = 0329.\overline{9} \\
 \hline
 & 900f = 2961 \\
 & f = \frac{2961}{900}
 \end{aligned}$$

$$\begin{aligned}
 9) \quad & 0.5\overline{31} \\
 & f = 0.5\overline{31} \\
 & 1,000f = 531.\overline{31} \\
 & - \quad 10f = 005.\overline{31} \\
 \hline
 & 990f = 526 \\
 & f = \frac{526}{990}
 \end{aligned}$$

$$\begin{aligned}
 10) \quad & 0.83\overline{1} \\
 & f = 0.83\overline{1} \\
 & 1,000f = 831.\overline{1} \\
 & - \quad 100f = 083.\overline{1} \\
 \hline
 & 900f = 748 \\
 & f = \frac{748}{900}
 \end{aligned}$$

Answers

1. $\frac{54584}{99000}$
2. $\frac{3011}{9900}$
3. $\frac{34788}{990}$
4. $\frac{517}{90}$
5. $\frac{807000}{99000}$
6. $\frac{49914}{9000}$
7. $\frac{63491}{9900}$
8. $\frac{2961}{900}$
9. $\frac{526}{990}$
10. $\frac{748}{900}$



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

Answers

1) $9.298\bar{4}$

2) $3.61\bar{4}$

1. _____

3) $1.2321\bar{6}$

4) $74.3\bar{35}$

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

5) $0.19\bar{6}$

6) $0.894\bar{30}$

9. _____

10. _____

7) $0.24\bar{55}$

8) $43.9\bar{1}$

9) $0.110\bar{6}$

10) $3.3\bar{10}$



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

$$\begin{aligned}
 1) \quad & 9.298\overline{4} \\
 & f = 9.298\overline{4} \\
 & 10,000f = 92984.\overline{4} \\
 & - 1,000f = 09298.\overline{4} \\
 \hline
 & 9000f = 83686 \\
 & f = \frac{83686}{9000}
 \end{aligned}$$

$$\begin{aligned}
 2) \quad & 3.61\overline{4} \\
 & f = 3.61\overline{4} \\
 & 1,000f = 3614.\overline{4} \\
 & - 100f = 0361.\overline{4} \\
 \hline
 & 900f = 3253 \\
 & f = \frac{3253}{900}
 \end{aligned}$$

$$\begin{aligned}
 3) \quad & 1.2321\overline{6} \\
 & f = 1.2321\overline{6} \\
 & 100,000f = 123216.\overline{16} \\
 & - 1,000f = 001232.\overline{16} \\
 \hline
 & 99000f = 121984 \\
 & f = \frac{121984}{99000}
 \end{aligned}$$

$$\begin{aligned}
 4) \quad & 74.3\overline{35} \\
 & f = 74.3\overline{35} \\
 & 1,000f = 74335.\overline{35} \\
 & - 10f = 00743.\overline{35} \\
 \hline
 & 990f = 73592 \\
 & f = \frac{73592}{990}
 \end{aligned}$$

$$\begin{aligned}
 5) \quad & 0.1\overline{96} \\
 & f = 0.1\overline{96} \\
 & 1,000f = 196.\overline{96} \\
 & - 10f = 001.\overline{96} \\
 \hline
 & 990f = 195 \\
 & f = \frac{195}{990}
 \end{aligned}$$

$$\begin{aligned}
 6) \quad & 0.894\overline{30} \\
 & f = 0.894\overline{30} \\
 & 100,000f = 89430.\overline{30} \\
 & - 1,000f = 00894.\overline{30} \\
 \hline
 & 99000f = 88536 \\
 & f = \frac{88536}{99000}
 \end{aligned}$$

$$\begin{aligned}
 7) \quad & 0.24\overline{55} \\
 & f = 0.24\overline{55} \\
 & 10,000f = 2455.\overline{55} \\
 & - 100f = 0024.\overline{55} \\
 \hline
 & 9900f = 2431 \\
 & f = \frac{2431}{9900}
 \end{aligned}$$

$$\begin{aligned}
 8) \quad & 43.9\overline{1} \\
 & f = 43.9\overline{1} \\
 & 100f = 4391.\overline{1} \\
 & - 10f = 0439.\overline{1} \\
 \hline
 & 90f = 3952 \\
 & f = \frac{3952}{90}
 \end{aligned}$$

$$\begin{aligned}
 9) \quad & 0.110\overline{6} \\
 & f = 0.110\overline{6} \\
 & 10,000f = 1106.\overline{6} \\
 & - 1,000f = 0110.\overline{6} \\
 \hline
 & 9000f = 996 \\
 & f = \frac{996}{9000}
 \end{aligned}$$

$$\begin{aligned}
 10) \quad & 3.3\overline{10} \\
 & f = 3.3\overline{10} \\
 & 1,000f = 3310.\overline{10} \\
 & - 10f = 0033.\overline{10} \\
 \hline
 & 990f = 3277 \\
 & f = \frac{3277}{990}
 \end{aligned}$$

Answers

1. $\frac{83686}{9000}$
2. $\frac{3253}{900}$
3. $\frac{121984}{99000}$
4. $\frac{73592}{990}$
5. $\frac{195}{990}$
6. $\frac{88536}{99000}$
7. $\frac{2431}{9900}$
8. $\frac{3952}{90}$
9. $\frac{996}{9000}$
10. $\frac{3277}{990}$



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

Answers

1) $0.9\overline{77}$

2) $2.5\overline{6}$

1. _____

3) $9.5\overline{11}$

4) $0.907\overline{56}$

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

5) $0.92\overline{6}$

6) $8.34\overline{4}$

9. _____

10. _____

7) $8.606\overline{32}$

8) $3.95\overline{54}$

9) $5.728\overline{8}$

10) $68.5\overline{4}$



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

$$\begin{aligned}
 1) \quad & 0.9\overline{77} \\
 & f = 0.9\overline{77} \\
 & 1,000f = 977.\overline{77} \\
 & - \quad 10f = 009.\overline{77} \\
 \hline
 & 990f = 968 \\
 & f = \frac{968}{990}
 \end{aligned}$$

$$\begin{aligned}
 2) \quad & 2.5\overline{6} \\
 & f = 2.5\overline{6} \\
 & 100f = 256.\overline{6} \\
 & - \quad 10f = 025.\overline{6} \\
 \hline
 & 90f = 231 \\
 & f = \frac{231}{90}
 \end{aligned}$$

$$\begin{aligned}
 3) \quad & 9.5\overline{11} \\
 & f = 9.5\overline{11} \\
 & 1,000f = 9511.\overline{11} \\
 & - \quad 10f = 0095.\overline{11} \\
 \hline
 & 990f = 9416 \\
 & f = \frac{9416}{990}
 \end{aligned}$$

$$\begin{aligned}
 4) \quad & 0.907\overline{56} \\
 & f = 0.907\overline{56} \\
 & 100,000f = 90756.\overline{56} \\
 & - \quad 1,000f = 00907.\overline{56} \\
 \hline
 & 99000f = 89849 \\
 & f = \frac{89849}{99000}
 \end{aligned}$$

$$\begin{aligned}
 5) \quad & 0.92\overline{6} \\
 & f = 0.92\overline{6} \\
 & 1,000f = 926.\overline{6} \\
 & - \quad 100f = 092.\overline{6} \\
 \hline
 & 900f = 834 \\
 & f = \frac{834}{900}
 \end{aligned}$$

$$\begin{aligned}
 6) \quad & 8.34\overline{4} \\
 & f = 8.34\overline{4} \\
 & 1,000f = 8344.\overline{4} \\
 & - \quad 100f = 0834.\overline{4} \\
 \hline
 & 900f = 7510 \\
 & f = \frac{7510}{900}
 \end{aligned}$$

$$\begin{aligned}
 7) \quad & 8.606\overline{32} \\
 & f = 8.606\overline{32} \\
 & 100,000f = 860632.\overline{32} \\
 & - \quad 1,000f = 008606.\overline{32} \\
 \hline
 & 99000f = 852026 \\
 & f = \frac{852026}{99000}
 \end{aligned}$$

$$\begin{aligned}
 8) \quad & 3.95\overline{54} \\
 & f = 3.95\overline{54} \\
 & 10,000f = 39554.\overline{54} \\
 & - \quad 100f = 00395.\overline{54} \\
 \hline
 & 9900f = 39159 \\
 & f = \frac{39159}{9900}
 \end{aligned}$$

$$\begin{aligned}
 9) \quad & 5.728\overline{8} \\
 & f = 5.728\overline{8} \\
 & 10,000f = 57288.\overline{8} \\
 & - \quad 1,000f = 05728.\overline{8} \\
 \hline
 & 9000f = 51560 \\
 & f = \frac{51560}{9000}
 \end{aligned}$$

$$\begin{aligned}
 10) \quad & 68.5\overline{4} \\
 & f = 68.5\overline{4} \\
 & 100f = 6854.\overline{4} \\
 & - \quad 10f = 0685.\overline{4} \\
 \hline
 & 90f = 6169 \\
 & f = \frac{6169}{90}
 \end{aligned}$$

Answers

$$1. \quad \frac{968}{990}$$

$$2. \quad \frac{231}{90}$$

$$3. \quad \frac{9416}{990}$$

$$4. \quad \frac{89849}{99000}$$

$$5. \quad \frac{834}{900}$$

$$6. \quad \frac{7510}{900}$$

$$7. \quad \frac{852026}{99000}$$

$$8. \quad \frac{39159}{9900}$$

$$9. \quad \frac{51560}{9000}$$

$$10. \quad \frac{6169}{90}$$



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

Answers

1) $0.497\overline{71}$

2) $0.4\overline{48}$

1. _____

3) $0.952\overline{4}$

4) $36.98\overline{2}$

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

5) $4.546\overline{5}$

6) $8.47\overline{4}$

7) $0.37\overline{7}$

8) $4.96\overline{8}$

9) $91.8\overline{3}$

10) $8.192\overline{13}$



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

$$\begin{aligned}
 1) \quad & 0.497\overline{71} \\
 & f = 0.497\overline{71} \\
 & 100,000f = 49771.\overline{71} \\
 & - \quad 1,000f = 00497.\overline{71} \\
 \hline
 & 99000f = 49274 \\
 & f = \frac{49274}{99000}
 \end{aligned}$$

$$\begin{aligned}
 2) \quad & 0.44\overline{8} \\
 & f = 0.44\overline{8} \\
 & 1,000f = 448.\overline{48} \\
 & - \quad 10f = 004.\overline{48} \\
 \hline
 & 990f = 444 \\
 & f = \frac{444}{990}
 \end{aligned}$$

$$\begin{aligned}
 3) \quad & 0.952\overline{4} \\
 & f = 0.952\overline{4} \\
 & 10,000f = 9524.\overline{4} \\
 & - \quad 1,000f = 0952.\overline{4} \\
 \hline
 & 9000f = 8572 \\
 & f = \frac{8572}{9000}
 \end{aligned}$$

$$\begin{aligned}
 4) \quad & 36.98\overline{2} \\
 & f = 36.98\overline{2} \\
 & 1,000f = 36982.\overline{82} \\
 & - \quad 10f = 00369.\overline{82} \\
 \hline
 & 990f = 36613 \\
 & f = \frac{36613}{990}
 \end{aligned}$$

$$\begin{aligned}
 5) \quad & 4.546\overline{5} \\
 & f = 4.546\overline{5} \\
 & 10,000f = 45465.\overline{5} \\
 & - \quad 1,000f = 04546.\overline{5} \\
 \hline
 & 9000f = 40919 \\
 & f = \frac{40919}{9000}
 \end{aligned}$$

$$\begin{aligned}
 6) \quad & 8.47\overline{4} \\
 & f = 8.47\overline{4} \\
 & 1,000f = 8474.\overline{4} \\
 & - \quad 100f = 0847.\overline{4} \\
 \hline
 & 900f = 7627 \\
 & f = \frac{7627}{900}
 \end{aligned}$$

$$\begin{aligned}
 7) \quad & 0.37\overline{7} \\
 & f = 0.37\overline{7} \\
 & 1,000f = 377.\overline{7} \\
 & - \quad 100f = 037.\overline{7} \\
 \hline
 & 900f = 340 \\
 & f = \frac{340}{900}
 \end{aligned}$$

$$\begin{aligned}
 8) \quad & 4.96\overline{8} \\
 & f = 4.96\overline{8} \\
 & 1,000f = 4968.\overline{68} \\
 & - \quad 10f = 0049.\overline{68} \\
 \hline
 & 990f = 4919 \\
 & f = \frac{4919}{990}
 \end{aligned}$$

$$\begin{aligned}
 9) \quad & 91.8\overline{3} \\
 & f = 91.8\overline{3} \\
 & 100f = 9183.\overline{3} \\
 & - \quad 10f = 0918.\overline{3} \\
 \hline
 & 90f = 8265 \\
 & f = \frac{8265}{90}
 \end{aligned}$$

$$\begin{aligned}
 10) \quad & 8.192\overline{13} \\
 & f = 8.192\overline{13} \\
 & 100,000f = 819213.\overline{13} \\
 & - \quad 1,000f = 008192.\overline{13} \\
 \hline
 & 99000f = 811021 \\
 & f = \frac{811021}{99000}
 \end{aligned}$$

Answers

1. $\frac{49274}{99000}$
2. $\frac{444}{990}$
3. $\frac{8572}{9000}$
4. $\frac{36613}{990}$
5. $\frac{40919}{9000}$
6. $\frac{7627}{900}$
7. $\frac{340}{900}$
8. $\frac{4919}{990}$
9. $\frac{8265}{90}$
10. $\frac{811021}{99000}$



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

Answers

1) $9.12\overline{78}$

2) $0.681\overline{39}$

1. _____

3) $0.95\overline{9}$

4) $79.52\overline{8}$

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

5) $0.48\overline{56}$

6) $5.569\overline{46}$

9. _____

10. _____

7) $4.665\overline{1}$

8) $4.3\overline{6}$

9) $22.5\overline{4}$

10) $0.8\overline{62}$



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

$$\begin{aligned}
 1) \quad & 9.12\overline{78} \\
 & f = 9.12\overline{78} \\
 & 10,000f = 91278.\overline{78} \\
 & - \quad 100f = 00912.\overline{78} \\
 & \hline
 & 9900f = 90366 \\
 & f = \frac{90366}{9900}
 \end{aligned}$$

$$\begin{aligned}
 2) \quad & 0.681\overline{39} \\
 & f = 0.681\overline{39} \\
 & 100,000f = 68139.\overline{39} \\
 & - \quad 1,000f = 00681.\overline{39} \\
 & \hline
 & 99000f = 67458 \\
 & f = \frac{67458}{99000}
 \end{aligned}$$

$$\begin{aligned}
 3) \quad & 0.95\overline{9} \\
 & f = 0.95\overline{9} \\
 & 1,000f = 959.\overline{9} \\
 & - \quad 100f = 096.\overline{9} \\
 & \hline
 & 900f = 864 \\
 & f = \frac{864}{900}
 \end{aligned}$$

$$\begin{aligned}
 4) \quad & 79.5\overline{28} \\
 & f = 79.5\overline{28} \\
 & 1,000f = 79528.\overline{28} \\
 & - \quad 10f = 00795.\overline{28} \\
 & \hline
 & 990f = 78733 \\
 & f = \frac{78733}{990}
 \end{aligned}$$

$$\begin{aligned}
 5) \quad & 0.48\overline{56} \\
 & f = 0.48\overline{56} \\
 & 10,000f = 4856.\overline{56} \\
 & - \quad 100f = 0048.\overline{56} \\
 & \hline
 & 9900f = 4808 \\
 & f = \frac{4808}{9900}
 \end{aligned}$$

$$\begin{aligned}
 6) \quad & 5.569\overline{46} \\
 & f = 5.569\overline{46} \\
 & 100,000f = 556946.\overline{46} \\
 & - \quad 1,000f = 005569.\overline{46} \\
 & \hline
 & 99000f = 551377 \\
 & f = \frac{551377}{99000}
 \end{aligned}$$

$$\begin{aligned}
 7) \quad & 4.665\overline{1} \\
 & f = 4.665\overline{1} \\
 & 10,000f = 46651.\overline{1} \\
 & - \quad 1,000f = 04665.\overline{1} \\
 & \hline
 & 9000f = 41986 \\
 & f = \frac{41986}{9000}
 \end{aligned}$$

$$\begin{aligned}
 8) \quad & 4.3\overline{6} \\
 & f = 4.3\overline{6} \\
 & 100f = 436.\overline{6} \\
 & - \quad 10f = 043.\overline{6} \\
 & \hline
 & 90f = 393 \\
 & f = \frac{393}{90}
 \end{aligned}$$

$$\begin{aligned}
 9) \quad & 22.5\overline{4} \\
 & f = 22.5\overline{4} \\
 & 100f = 2254.\overline{4} \\
 & - \quad 10f = 0225.\overline{4} \\
 & \hline
 & 90f = 2029 \\
 & f = \frac{2029}{90}
 \end{aligned}$$

$$\begin{aligned}
 10) \quad & 0.8\overline{62} \\
 & f = 0.8\overline{62} \\
 & 1,000f = 862.\overline{62} \\
 & - \quad 10f = 008.\overline{62} \\
 & \hline
 & 990f = 854 \\
 & f = \frac{854}{990}
 \end{aligned}$$

Answers

1. $\frac{90366}{9900}$
2. $\frac{67458}{99000}$
3. $\frac{864}{900}$
4. $\frac{78733}{990}$
5. $\frac{4808}{900}$
6. $\frac{551377}{99000}$
7. $\frac{41986}{9000}$
8. $\frac{393}{90}$
9. $\frac{2029}{90}$
10. $\frac{854}{990}$



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

Answers

1) $6.985\bar{5}$

2) $69.8\bar{9}$

1. _____

3) $7.762\bar{8}$

4) $0.17\bar{5}$

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

5) $0.889\bar{3}$

6) $2.17\bar{1}$

9. _____

10. _____

7) $9.7\bar{6}$

8) $3.84\bar{5}$

9) $0.8512\bar{9}$

10) $0.544\bar{5}$



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

Answers

$$\begin{aligned}
 1) \quad & 6.985\bar{5} \\
 & f = 6.985\bar{5} \\
 & 10,000f = 69855.\bar{5} \\
 & - 1,000f = 06985.\bar{5} \\
 \hline
 & 9000f = 62870 \\
 & f = \frac{62870}{9000}
 \end{aligned}$$

$$\begin{aligned}
 2) \quad & 69.8\bar{9} \\
 & f = 69.8\bar{9} \\
 & 100f = 6989.\bar{9} \\
 & - 10f = 0699.\bar{9} \\
 \hline
 & 90f = 6291 \\
 & f = \frac{6291}{90}
 \end{aligned}$$

$$\begin{aligned}
 3) \quad & 7.76\bar{2}8 \\
 & f = 7.76\bar{2}8 \\
 & 10,000f = 77628.\bar{2}8 \\
 & - 100f = 00776.\bar{2}8 \\
 \hline
 & 9900f = 76852 \\
 & f = \frac{76852}{9900}
 \end{aligned}$$

$$\begin{aligned}
 4) \quad & 0.1\bar{7}5 \\
 & f = 0.1\bar{7}5 \\
 & 1,000f = 175.\bar{7}5 \\
 & - 10f = 001.\bar{7}5 \\
 \hline
 & 990f = 174 \\
 & f = \frac{174}{990}
 \end{aligned}$$

$$\begin{aligned}
 5) \quad & 0.889\bar{3} \\
 & f = 0.889\bar{3} \\
 & 10,000f = 8893.\bar{3} \\
 & - 1,000f = 0889.\bar{3} \\
 \hline
 & 9000f = 8004 \\
 & f = \frac{8004}{9000}
 \end{aligned}$$

$$\begin{aligned}
 6) \quad & 2.17\bar{1} \\
 & f = 2.17\bar{1} \\
 & 1,000f = 2171.\bar{1} \\
 & - 100f = 0217.\bar{1} \\
 \hline
 & 900f = 1954 \\
 & f = \frac{1954}{900}
 \end{aligned}$$

$$\begin{aligned}
 7) \quad & 9.7\bar{6} \\
 & f = 9.7\bar{6} \\
 & 100f = 976.\bar{6} \\
 & - 10f = 097.\bar{6} \\
 \hline
 & 90f = 879 \\
 & f = \frac{879}{90}
 \end{aligned}$$

$$\begin{aligned}
 8) \quad & 3.84\bar{5} \\
 & f = 3.84\bar{5} \\
 & 1,000f = 3845.\bar{4}5 \\
 & - 10f = 0038.\bar{4}5 \\
 \hline
 & 990f = 3807 \\
 & f = \frac{3807}{990}
 \end{aligned}$$

$$\begin{aligned}
 9) \quad & 0.8512\bar{9} \\
 & f = 0.8512\bar{9} \\
 & 100,000f = 85129.\bar{2}9 \\
 & - 1,000f = 00851.\bar{2}9 \\
 \hline
 & 99000f = 84278 \\
 & f = \frac{84278}{99000}
 \end{aligned}$$

$$\begin{aligned}
 10) \quad & 0.544\bar{5} \\
 & f = 0.544\bar{5} \\
 & 10,000f = 5445.\bar{4}5 \\
 & - 100f = 0054.\bar{4}5 \\
 \hline
 & 9900f = 5391 \\
 & f = \frac{5391}{9900}
 \end{aligned}$$

1. $\frac{62870}{9000}$
2. $\frac{6291}{90}$
3. $\frac{76852}{9900}$
4. $\frac{174}{990}$
5. $\frac{8004}{9000}$
6. $\frac{1954}{900}$
7. $\frac{879}{90}$
8. $\frac{3807}{990}$
9. $\frac{84278}{99000}$
10. $\frac{5391}{9900}$



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

Answers

1) $7.641\bar{5}$

2) $5.8\bar{34}$

1. _____

2. _____

3) $4.950\bar{37}$

4) $0.574\bar{9}$

3. _____

4. _____

5. _____

6. _____

5) $7.2\bar{1}$

6) $44.4\bar{9}$

7. _____

8. _____

9. _____

10. _____

7) $2.9\bar{67}$

8) $0.368\bar{34}$

9) $0.24\bar{11}$

10) $0.5\bar{38}$



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. $\frac{485}{900}$



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. _____

9. _____

10. _____

5) $6.483\bar{9}$

6) $21.7\bar{8}$

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. $\frac{3693}{990}$



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

Answers

1) $43.\overline{355}$

2) $0.81\overline{50}$

1. _____

3) $2.604\overline{6}$

4) $1.69\overline{8}$

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

5) $0.3\overline{20}$

6) $7.5\overline{9}$

9. _____

10. _____

7) $0.62\overline{9}$

8) $1.910\overline{36}$

9) $23.\overline{38}$

10) $0.581\overline{2}$



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

$$\begin{aligned}
 1) \quad & 43.\overline{355} \\
 & f = 43.\overline{355} \\
 & 1,000f = 43355.\overline{55} \\
 & - \quad 10f = 00433.\overline{55} \\
 \hline
 & 990f = 42922 \\
 & f = \frac{42922}{990}
 \end{aligned}$$

$$\begin{aligned}
 2) \quad & 0.81\overline{50} \\
 & f = 0.81\overline{50} \\
 & 10,000f = 8150.\overline{50} \\
 & - \quad 100f = 0081.\overline{50} \\
 \hline
 & 9900f = 8069 \\
 & f = \frac{8069}{9900}
 \end{aligned}$$

$$\begin{aligned}
 3) \quad & 2.604\overline{6} \\
 & f = 2.604\overline{6} \\
 & 10,000f = 26046.\overline{6} \\
 & - \quad 1,000f = 02604.\overline{6} \\
 \hline
 & 9000f = 23442 \\
 & f = \frac{23442}{9000}
 \end{aligned}$$

$$\begin{aligned}
 4) \quad & 1.69\overline{8} \\
 & f = 1.69\overline{8} \\
 & 1,000f = 1698.\overline{8} \\
 & - \quad 100f = 0169.\overline{8} \\
 \hline
 & 900f = 1529 \\
 & f = \frac{1529}{900}
 \end{aligned}$$

$$\begin{aligned}
 5) \quad & 0.3\overline{20} \\
 & f = 0.3\overline{20} \\
 & 1,000f = 320.\overline{20} \\
 & - \quad 10f = 003.\overline{20} \\
 \hline
 & 990f = 317 \\
 & f = \frac{317}{990}
 \end{aligned}$$

$$\begin{aligned}
 6) \quad & 7.5\overline{9} \\
 & f = 7.5\overline{9} \\
 & 100f = 759.\overline{9} \\
 & - \quad 10f = 076.\overline{9} \\
 \hline
 & 90f = 684 \\
 & f = \frac{684}{90}
 \end{aligned}$$

$$\begin{aligned}
 7) \quad & 0.62\overline{9} \\
 & f = 0.62\overline{9} \\
 & 1,000f = 629.\overline{9} \\
 & - \quad 100f = 063.\overline{9} \\
 \hline
 & 900f = 567 \\
 & f = \frac{567}{900}
 \end{aligned}$$

$$\begin{aligned}
 8) \quad & 1.910\overline{36} \\
 & f = 1.910\overline{36} \\
 & 100,000f = 191036.\overline{36} \\
 & - \quad 1,000f = 001910.\overline{36} \\
 \hline
 & 99000f = 189126 \\
 & f = \frac{189126}{99000}
 \end{aligned}$$

$$\begin{aligned}
 9) \quad & 23.\overline{38} \\
 & f = 23.\overline{38} \\
 & 100f = 2338.\overline{8} \\
 & - \quad 10f = 0233.\overline{8} \\
 \hline
 & 90f = 2105 \\
 & f = \frac{2105}{90}
 \end{aligned}$$

$$\begin{aligned}
 10) \quad & 0.581\overline{2} \\
 & f = 0.581\overline{2} \\
 & 10,000f = 5812.\overline{2} \\
 & - \quad 1,000f = 0581.\overline{2} \\
 \hline
 & 9000f = 5231 \\
 & f = \frac{5231}{9000}
 \end{aligned}$$

Answers

1. $\frac{42922}{990}$
2. $\frac{8069}{9900}$
3. $\frac{23442}{9000}$
4. $\frac{1529}{900}$
5. $\frac{317}{990}$
6. $\frac{684}{90}$
7. $\frac{567}{900}$
8. $\frac{189126}{99000}$
9. $\frac{2105}{90}$
10. $\frac{5231}{9000}$



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

1) $0.86\overline{18}$

2) $8.379\overline{4}$

3) $4.6\overline{55}$

4) $0.777\overline{7}$

5) $0.98\overline{0}$

6) $38.2\overline{1}$

7) $3.43\overline{8}$

8) $0.83\overline{9}$

9) $9.9\overline{6}$

10) $0.736\overline{64}$

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____



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

$$\begin{aligned}
 1) \quad & 0.86\overline{18} \\
 & f = 0.86\overline{18} \\
 & 10,000f = 8618.\overline{18} \\
 & - \quad 100f = 0086.\overline{18} \\
 \hline
 & 9900f = 8532 \\
 & f = \frac{8532}{9900}
 \end{aligned}$$

$$\begin{aligned}
 2) \quad & 8.379\overline{4} \\
 & f = 8.379\overline{4} \\
 & 10,000f = 83794.\overline{4} \\
 & - \quad 1,000f = 08379.\overline{4} \\
 \hline
 & 9000f = 75415 \\
 & f = \frac{75415}{9000}
 \end{aligned}$$

$$\begin{aligned}
 3) \quad & 4.6\overline{55} \\
 & f = 4.6\overline{55} \\
 & 1,000f = 4655.\overline{55} \\
 & - \quad 10f = 0046.\overline{55} \\
 \hline
 & 990f = 4609 \\
 & f = \frac{4609}{990}
 \end{aligned}$$

$$\begin{aligned}
 4) \quad & 0.777\overline{7} \\
 & f = 0.777\overline{7} \\
 & 10,000f = 7777.\overline{7} \\
 & - \quad 1,000f = 0777.\overline{7} \\
 \hline
 & 9000f = 7000 \\
 & f = \frac{7000}{9000}
 \end{aligned}$$

$$\begin{aligned}
 5) \quad & 0.98\overline{0} \\
 & f = 0.98\overline{0} \\
 & 1,000f = 980.\overline{0} \\
 & - \quad 10f = 009.\overline{0} \\
 \hline
 & 990f = 971 \\
 & f = \frac{971}{990}
 \end{aligned}$$

$$\begin{aligned}
 6) \quad & 38.2\overline{1} \\
 & f = 38.2\overline{1} \\
 & 100f = 3821.\overline{1} \\
 & - \quad 10f = 0382.\overline{1} \\
 \hline
 & 90f = 3439 \\
 & f = \frac{3439}{90}
 \end{aligned}$$

$$\begin{aligned}
 7) \quad & 3.43\overline{8} \\
 & f = 3.43\overline{8} \\
 & 1,000f = 3438.\overline{8} \\
 & - \quad 100f = 0343.\overline{8} \\
 \hline
 & 900f = 3095 \\
 & f = \frac{3095}{900}
 \end{aligned}$$

$$\begin{aligned}
 8) \quad & 0.83\overline{9} \\
 & f = 0.83\overline{9} \\
 & 1,000f = 839.\overline{9} \\
 & - \quad 100f = 084.\overline{9} \\
 \hline
 & 900f = 756 \\
 & f = \frac{756}{900}
 \end{aligned}$$

$$\begin{aligned}
 9) \quad & 9.9\overline{6} \\
 & f = 9.9\overline{6} \\
 & 100f = 996.\overline{6} \\
 & - \quad 10f = 099.\overline{6} \\
 \hline
 & 90f = 897 \\
 & f = \frac{897}{90}
 \end{aligned}$$

$$\begin{aligned}
 10) \quad & 0.736\overline{64} \\
 & f = 0.736\overline{64} \\
 & 100,000f = 73664.\overline{64} \\
 & - \quad 1,000f = 00736.\overline{64} \\
 \hline
 & 99000f = 72928 \\
 & f = \frac{72928}{99000}
 \end{aligned}$$

Answers

1. $\frac{8532}{9900}$
2. $\frac{75415}{9000}$
3. $\frac{4609}{990}$
4. $\frac{7000}{9000}$
5. $\frac{971}{990}$
6. $\frac{3439}{90}$
7. $\frac{3095}{900}$
8. $\frac{756}{900}$
9. $\frac{897}{90}$
10. $\frac{72928}{99000}$