



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

1) $0.43\overline{54}$

2) $0.58\overline{8}$

3) $0.6\overline{80}$

4) $5.48\overline{4}$

5) $8.18\overline{0}$

6) $0.81\overline{668}$

7) $5.246\overline{90}$

8) $9.233\overline{1}$

9) $27.9\overline{1}$

10) $4.593\overline{5}$

Answers

1. _____

2. _____

3. _____

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10. _____



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

1) $0.43\overline{54}$

$$\begin{aligned} f &= 0.43\overline{54} \\ 10,000f &= 4354.\overline{54} \\ - 100f &= 0043.\overline{54} \\ \hline 9900f &= 4311 \end{aligned}$$

$$f = \frac{4311}{9900}$$

2) $0.58\overline{8}$

$$\begin{aligned} f &= 0.58\overline{8} \\ 1,000f &= 588.\overline{8} \\ - 100f &= 058.\overline{8} \\ \hline 900f &= 530 \end{aligned}$$

$$f = \frac{530}{900}$$

3) $0.68\overline{0}$

$$\begin{aligned} f &= 0.68\overline{0} \\ 1,000f &= 680.\overline{0} \\ - 10f &= 006.\overline{0} \\ \hline 990f &= 674 \end{aligned}$$

$$f = \frac{674}{990}$$

4) $5.48\overline{4}$

$$\begin{aligned} f &= 5.48\overline{4} \\ 1,000f &= 5484.\overline{4} \\ - 100f &= 0548.\overline{4} \\ \hline 900f &= 4936 \end{aligned}$$

$$f = \frac{4936}{900}$$

5) $8.18\overline{0}$

$$\begin{aligned} f &= 8.18\overline{0} \\ 1,000f &= 8180.\overline{0} \\ - 10f &= 0081.\overline{0} \\ \hline 990f &= 8099 \end{aligned}$$

$$f = \frac{8099}{990}$$

6) $0.816\overline{68}$

$$\begin{aligned} f &= 0.816\overline{68} \\ 100,000f &= 81668.\overline{68} \\ - 1,000f &= 00816.\overline{68} \\ \hline 99000f &= 80852 \end{aligned}$$

$$f = \frac{80852}{99000}$$

7) $5.246\overline{90}$

$$\begin{aligned} f &= 5.246\overline{90} \\ 100,000f &= 524690.\overline{90} \\ - 1,000f &= 005246.\overline{90} \\ \hline 99000f &= 519444 \end{aligned}$$

$$f = \frac{519444}{99000}$$

8) $9.233\overline{1}$

$$\begin{aligned} f &= 9.233\overline{1} \\ 10,000f &= 92331.\overline{31} \\ - 100f &= 00923.\overline{31} \\ \hline 9900f &= 91408 \end{aligned}$$

$$f = \frac{91408}{9900}$$

9) $27.9\overline{1}$

$$\begin{aligned} f &= 27.9\overline{1} \\ 100f &= 2791.\overline{1} \\ - 10f &= 0279.\overline{1} \\ \hline 90f &= 2512 \end{aligned}$$

$$f = \frac{2512}{90}$$

10) $4.593\overline{5}$

$$\begin{aligned} f &= 4.593\overline{5} \\ 10,000f &= 45935.\overline{5} \\ - 1,000f &= 04593.\overline{5} \\ \hline 9000f &= 41342 \end{aligned}$$

$$f = \frac{41342}{9000}$$

Answers

1. $\frac{4311}{9900}$
2. $\frac{530}{900}$
3. $\frac{674}{990}$
4. $\frac{4936}{900}$
5. $\frac{8099}{990}$
6. $\frac{80852}{99000}$
7. $\frac{519444}{99000}$
8. $\frac{91408}{9900}$
9. $\frac{2512}{90}$
10. $\frac{41342}{9000}$



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

1) $7.1\overline{22}$

2) $9.9\overline{4}$

3) $0.52\overline{71}$

4) $0.669\overline{2}$

5) $1.243\overline{2}$

6) $1.591\overline{10}$

7) $23.2\overline{6}$

8) $0.41\overline{7}$

9) $1.45\overline{5}$

10) $0.7685\overline{1}$

Answers

1. _____

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

1) $7.1\overline{22}$

$$\begin{array}{r} f = 7.1\overline{22} \\ 1,000f = 7122.\overline{22} \\ - 10f = 0071.\overline{22} \\ \hline 990f = 7051 \end{array}$$

$$f = \frac{7051}{990}$$

2) $9.\overline{94}$

$$\begin{array}{r} f = 9.\overline{94} \\ 100f = 994.\overline{4} \\ - 10f = 099.\overline{4} \\ \hline 90f = 895 \end{array}$$

$$f = \frac{895}{90}$$

3) $0.52\overline{71}$

$$\begin{array}{r} f = 0.52\overline{71} \\ 10,000f = 5271.\overline{71} \\ - 100f = 0052.\overline{71} \\ \hline 9900f = 5219 \end{array}$$

$$f = \frac{5219}{9900}$$

4) $0.669\overline{2}$

$$\begin{array}{r} f = 0.669\overline{2} \\ 10,000f = 6692.\overline{2} \\ - 1,000f = 0669.\overline{2} \\ \hline 9000f = 6023 \end{array}$$

$$f = \frac{6023}{9000}$$

5) $1.243\overline{2}$

$$\begin{array}{r} f = 1.243\overline{2} \\ 10,000f = 12432.\overline{2} \\ - 1,000f = 01243.\overline{2} \\ \hline 9000f = 11189 \end{array}$$

$$f = \frac{11189}{9000}$$

6) $1.591\overline{10}$

$$\begin{array}{r} f = 1.591\overline{10} \\ 100,000f = 159110.\overline{10} \\ - 1,000f = 001591.\overline{10} \\ \hline 99000f = 157519 \end{array}$$

$$f = \frac{157519}{99000}$$

7) $23.2\overline{6}$

$$\begin{array}{r} f = 23.2\overline{6} \\ 100f = 2326.\overline{6} \\ - 10f = 0232.\overline{6} \\ \hline 90f = 2094 \end{array}$$

$$f = \frac{2094}{90}$$

8) $0.41\overline{7}$

$$\begin{array}{r} f = 0.41\overline{7} \\ 1,000f = 417.\overline{7} \\ - 100f = 041.\overline{7} \\ \hline 900f = 376 \end{array}$$

$$f = \frac{376}{900}$$

9) $1.45\overline{5}$

$$\begin{array}{r} f = 1.45\overline{5} \\ 1,000f = 1455.\overline{5} \\ - 100f = 0145.\overline{5} \\ \hline 900f = 1310 \end{array}$$

$$f = \frac{1310}{900}$$

10) $0.768\overline{51}$

$$\begin{array}{r} f = 0.768\overline{51} \\ 100,000f = 76851.\overline{51} \\ - 1,000f = 00768.\overline{51} \\ \hline 99000f = 76083 \end{array}$$

$$f = \frac{76083}{99000}$$

Answers

1. $\frac{7051}{990}$

2. $\frac{895}{90}$

3. $\frac{5219}{9900}$

4. $\frac{6023}{9000}$

5. $\frac{11189}{9000}$

6. $\frac{157519}{99000}$

7. $\frac{2094}{90}$

8. $\frac{376}{900}$

9. $\frac{1310}{900}$

10. $\frac{76083}{99000}$



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

1) $0.728\overline{10}$

2) $0.5\overline{66}$

3) $1.9\overline{4}$

4) $0.75\overline{1}$

5) $9.305\overline{34}$

6) $0.309\overline{4}$

7) $47.7\overline{5}$

8) $54.19\overline{1}$

9) $1.728\overline{6}$

10) $5.98\overline{6}$

Answers

1. _____

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

1) $0.728\overline{10}$

$$\begin{aligned} f &= 0.728\overline{10} \\ 100,000f &= 72810.\overline{10} \\ - 1,000f &= 00728.\overline{10} \\ \hline 99000f &= 72082 \end{aligned}$$

$$f = \frac{72082}{99000}$$

2) $0.5\overline{66}$

$$\begin{aligned} f &= 0.5\overline{66} \\ 1,000f &= 566.\overline{66} \\ - 10f &= 005.\overline{66} \\ \hline 990f &= 561 \end{aligned}$$

$$f = \frac{561}{990}$$

3) $1.9\overline{4}$

$$\begin{aligned} f &= 1.9\overline{4} \\ 100f &= 194.\overline{4} \\ - 10f &= 019.\overline{4} \\ \hline 90f &= 175 \end{aligned}$$

$$f = \frac{175}{90}$$

4) $0.75\overline{1}$

$$\begin{aligned} f &= 0.75\overline{1} \\ 1,000f &= 751.\overline{1} \\ - 100f &= 075.\overline{1} \\ \hline 900f &= 676 \end{aligned}$$

$$f = \frac{676}{900}$$

5) $9.305\overline{34}$

$$\begin{aligned} f &= 9.305\overline{34} \\ 100,000f &= 930534.\overline{34} \\ - 1,000f &= 009305.\overline{34} \\ \hline 99000f &= 921229 \end{aligned}$$

$$f = \frac{921229}{99000}$$

6) $0.309\overline{4}$

$$\begin{aligned} f &= 0.309\overline{4} \\ 10,000f &= 3094.\overline{4} \\ - 1,000f &= 0309.\overline{4} \\ \hline 9000f &= 2785 \end{aligned}$$

$$f = \frac{2785}{9000}$$

7) $47.7\overline{5}$

$$\begin{aligned} f &= 47.7\overline{5} \\ 100f &= 4775.\overline{5} \\ - 10f &= 0477.\overline{5} \\ \hline 90f &= 4298 \end{aligned}$$

$$f = \frac{4298}{90}$$

8) $54.19\overline{1}$

$$\begin{aligned} f &= 54.19\overline{1} \\ 1,000f &= 54191.\overline{91} \\ - 10f &= 00541.\overline{91} \\ \hline 990f &= 53650 \end{aligned}$$

$$f = \frac{53650}{990}$$

9) $1.728\overline{6}$

$$\begin{aligned} f &= 1.728\overline{6} \\ 10,000f &= 17286.\overline{6} \\ - 1,000f &= 01728.\overline{6} \\ \hline 9000f &= 15558 \end{aligned}$$

$$f = \frac{15558}{9000}$$

10) $5.98\overline{6}$

$$\begin{aligned} f &= 5.98\overline{6} \\ 1,000f &= 5986.\overline{86} \\ - 10f &= 0059.\overline{86} \\ \hline 990f &= 5927 \end{aligned}$$

$$f = \frac{5927}{990}$$

Answers

1. $\frac{72082}{99000}$
2. $\frac{561}{990}$
3. $\frac{175}{90}$
4. $\frac{676}{900}$
5. $\frac{921229}{99000}$
6. $\frac{2785}{9000}$
7. $\frac{4298}{90}$
8. $\frac{53650}{990}$
9. $\frac{15558}{9000}$
10. $\frac{5927}{990}$



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

1) $26.\overline{37}$

2) $0.4\overline{16}$

3) $8.1\overline{32}$

4) $0.6\overline{693}$

5) $4.24\overline{12}$

6) $0.55\overline{1}$

7) $0.76\overline{36}$

8) $4.889\overline{26}$

9) $9.434\overline{6}$

10) $49.94\overline{1}$

Answers

1. _____

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

1) $26.\overline{37}$

$$\begin{array}{r} f = 26.\overline{37} \\ 100f = 2637.\overline{7} \\ - 10f = 0263.\overline{7} \\ \hline 90f = 2374 \end{array}$$

$$f = \frac{2374}{90}$$

2) $0.4\overline{16}$

$$\begin{array}{r} f = 0.4\overline{16} \\ 1,000f = 416.\overline{16} \\ - 10f = 004.\overline{16} \\ \hline 990f = 412 \end{array}$$

$$f = \frac{412}{990}$$

3) $8.1\overline{32}$

$$\begin{array}{r} f = 8.1\overline{32} \\ 1,000f = 8132.\overline{32} \\ - 10f = 0081.\overline{32} \\ \hline 990f = 8051 \end{array}$$

$$f = \frac{8051}{990}$$

4) $0.6\overline{693}$

$$\begin{array}{r} f = 0.6\overline{693} \\ 10,000f = 6693.\overline{93} \\ - 100f = 0066.\overline{93} \\ \hline 9900f = 6627 \end{array}$$

$$f = \frac{6627}{9900}$$

5) $4.24\overline{12}$

$$\begin{array}{r} f = 4.24\overline{12} \\ 10,000f = 42412.\overline{12} \\ - 100f = 00424.\overline{12} \\ \hline 9900f = 41988 \end{array}$$

$$f = \frac{41988}{9900}$$

6) $0.55\overline{1}$

$$\begin{array}{r} f = 0.55\overline{1} \\ 1,000f = 551.\overline{1} \\ - 100f = 055.\overline{1} \\ \hline 900f = 496 \end{array}$$

$$f = \frac{496}{900}$$

7) $0.763\overline{6}$

$$\begin{array}{r} f = 0.763\overline{6} \\ 10,000f = 7636.\overline{6} \\ - 1,000f = 0763.\overline{6} \\ \hline 9000f = 6873 \end{array}$$

$$f = \frac{6873}{9000}$$

8) $4.8892\overline{6}$

$$\begin{array}{r} f = 4.8892\overline{6} \\ 100,000f = 488926.\overline{26} \\ - 1,000f = 004889.\overline{26} \\ \hline 99000f = 484037 \end{array}$$

$$f = \frac{484037}{99000}$$

9) $9.434\overline{6}$

$$\begin{array}{r} f = 9.434\overline{6} \\ 10,000f = 94346.\overline{6} \\ - 1,000f = 09434.\overline{6} \\ \hline 9000f = 84912 \end{array}$$

$$f = \frac{84912}{9000}$$

10) $49.94\overline{1}$

$$\begin{array}{r} f = 49.94\overline{1} \\ 1,000f = 49941.\overline{41} \\ - 10f = 00499.\overline{41} \\ \hline 990f = 49442 \end{array}$$

$$f = \frac{49442}{990}$$

Answers

1. $\frac{2374}{90}$

2. $\frac{412}{990}$

3. $\frac{8051}{990}$

4. $\frac{6627}{9900}$

5. $\frac{41988}{9900}$

6. $\frac{496}{900}$

7. $\frac{6873}{9000}$

8. $\frac{484037}{99000}$

9. $\frac{84912}{9000}$

10. $\frac{49442}{990}$



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

1) $9.6\bar{2}$

2) $3.86\bar{26}$

3) $26.5\bar{1}$

4) $3.3519\bar{7}$

5) $0.337\bar{2}$

6) $0.56\bar{1}$

7) $8.800\bar{2}$

8) $88.78\bar{0}$

9) $0.93\bar{0}$

10) $7.84\bar{5}$

Answers

1. _____

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9. _____

10. _____



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

1) $9.\overline{62}$

$$\begin{aligned} f &= 9.\overline{62} \\ 100f &= 962.\overline{2} \\ - 10f &= 96.\overline{2} \\ \hline 90f &= 866 \end{aligned}$$

$$f = \frac{866}{90}$$

2) $3.8\overline{626}$

$$\begin{aligned} f &= 3.8\overline{626} \\ 10,000f &= 38626.\overline{26} \\ - 100f &= 386.\overline{26} \\ \hline 9900f &= 38240 \end{aligned}$$

$$f = \frac{38240}{9900}$$

3) $26.5\overline{1}$

$$\begin{aligned} f &= 26.5\overline{1} \\ 100f &= 2651.\overline{1} \\ - 10f &= 265.\overline{1} \\ \hline 90f &= 2386 \end{aligned}$$

$$f = \frac{2386}{90}$$

4) $3.351\overline{97}$

$$\begin{aligned} f &= 3.351\overline{97} \\ 100,000f &= 335197.\overline{97} \\ - 1,000f &= 3351.\overline{97} \\ \hline 99000f &= 331846 \end{aligned}$$

$$f = \frac{331846}{99000}$$

5) $0.337\overline{2}$

$$\begin{aligned} f &= 0.337\overline{2} \\ 10,000f &= 3372.\overline{2} \\ - 1,000f &= 337.\overline{2} \\ \hline 9000f &= 3035 \end{aligned}$$

$$f = \frac{3035}{9000}$$

6) $0.56\overline{1}$

$$\begin{aligned} f &= 0.56\overline{1} \\ 1,000f &= 561.\overline{1} \\ - 100f &= 56.\overline{1} \\ \hline 900f &= 505 \end{aligned}$$

$$f = \frac{505}{900}$$

7) $8.800\overline{2}$

$$\begin{aligned} f &= 8.800\overline{2} \\ 10,000f &= 88002.\overline{2} \\ - 1,000f &= 8800.\overline{2} \\ \hline 9000f &= 79202 \end{aligned}$$

$$f = \frac{79202}{9000}$$

8) $88.7\overline{80}$

$$\begin{aligned} f &= 88.7\overline{80} \\ 1,000f &= 88780.\overline{80} \\ - 10f &= 887.\overline{80} \\ \hline 990f &= 87893 \end{aligned}$$

$$f = \frac{87893}{990}$$

9) $0.93\overline{0}$

$$\begin{aligned} f &= 0.93\overline{0} \\ 1,000f &= 930.\overline{30} \\ - 10f &= 9.\overline{30} \\ \hline 990f &= 921 \end{aligned}$$

$$f = \frac{921}{990}$$

10) $7.84\overline{5}$

$$\begin{aligned} f &= 7.84\overline{5} \\ 1,000f &= 7845.\overline{5} \\ - 100f &= 784.\overline{5} \\ \hline 900f &= 7061 \end{aligned}$$

$$f = \frac{7061}{900}$$

Answers

1. $\frac{866}{90}$

2. $\frac{38240}{9900}$

3. $\frac{2386}{90}$

4. $\frac{331846}{99000}$

5. $\frac{3035}{9000}$

6. $\frac{505}{900}$

7. $\frac{79202}{9000}$

8. $\frac{87893}{990}$

9. $\frac{921}{990}$

10. $\frac{7061}{900}$



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. _____

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3. _____

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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. $\frac{924}{990}$



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

1) $6.9\overline{92}$

2) $0.84\overline{0}$

3) $0.4801\overline{7}$

4) $0.69\overline{76}$

5) $9.86\overline{25}$

6) $89.84\overline{0}$

7) $4.886\overline{89}$

8) $0.57\overline{5}$

9) $5.79\overline{5}$

10) $14.6\overline{1}$

Answers

1. _____

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8. _____

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10. _____



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

1) $6.\overline{992}$

$$\begin{array}{r} f = 6.\overline{992} \\ 1,000f = 6992.\overline{92} \\ - \quad 10f = 0069.\overline{92} \\ \hline 990f = 6923 \end{array}$$

$$f = \frac{6923}{990}$$

2) $0.\overline{840}$

$$\begin{array}{r} f = 0.\overline{840} \\ 1,000f = 840.\overline{40} \\ - \quad 10f = 008.\overline{40} \\ \hline 990f = 832 \end{array}$$

$$f = \frac{832}{990}$$

3) $0.480\overline{17}$

$$\begin{array}{r} f = 0.480\overline{17} \\ 100,000f = 48017.\overline{17} \\ - \quad 1,000f = 00480.\overline{17} \\ \hline 99000f = 47537 \end{array}$$

$$f = \frac{47537}{99000}$$

4) $0.69\overline{76}$

$$\begin{array}{r} f = 0.69\overline{76} \\ 10,000f = 6976.\overline{76} \\ - \quad 100f = 0069.\overline{76} \\ \hline 9900f = 6907 \end{array}$$

$$f = \frac{6907}{9900}$$

5) $9.86\overline{25}$

$$\begin{array}{r} f = 9.86\overline{25} \\ 10,000f = 98625.\overline{25} \\ - \quad 100f = 00986.\overline{25} \\ \hline 9900f = 97639 \end{array}$$

$$f = \frac{97639}{9900}$$

6) $89.\overline{840}$

$$\begin{array}{r} f = 89.\overline{840} \\ 1,000f = 89840.\overline{40} \\ - \quad 10f = 00898.\overline{40} \\ \hline 990f = 88942 \end{array}$$

$$f = \frac{88942}{990}$$

7) $4.886\overline{89}$

$$\begin{array}{r} f = 4.886\overline{89} \\ 100,000f = 488689.\overline{89} \\ - \quad 1,000f = 004886.\overline{89} \\ \hline 99000f = 483803 \end{array}$$

$$f = \frac{483803}{99000}$$

8) $0.5\overline{75}$

$$\begin{array}{r} f = 0.5\overline{75} \\ 1,000f = 575.\overline{5} \\ - \quad 100f = 057.\overline{5} \\ \hline 900f = 518 \end{array}$$

$$f = \frac{518}{900}$$

9) $5.79\overline{5}$

$$\begin{array}{r} f = 5.79\overline{5} \\ 1,000f = 5795.\overline{5} \\ - \quad 100f = 0579.\overline{5} \\ \hline 900f = 5216 \end{array}$$

$$f = \frac{5216}{900}$$

10) $14.6\overline{1}$

$$\begin{array}{r} f = 14.6\overline{1} \\ 100f = 1461.\overline{1} \\ - \quad 10f = 0146.\overline{1} \\ \hline 90f = 1315 \end{array}$$

$$f = \frac{1315}{90}$$

Answers

1. $\frac{6923}{990}$
2. $\frac{832}{990}$
3. $\frac{47537}{99000}$
4. $\frac{6907}{9900}$
5. $\frac{97639}{9900}$
6. $\frac{88942}{990}$
7. $\frac{483803}{99000}$
8. $\frac{518}{900}$
9. $\frac{5216}{900}$
10. $\frac{1315}{90}$



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

1) $0.33\overline{38}$

2) $0.24\overline{8}$

3) $0.595\overline{4}$

4) $2.899\overline{2}$

5) $72.1\overline{3}$

6) $0.681\overline{81}$

7) $7.47\overline{3}$

8) $8.9\overline{67}$

9) $62.54\overline{2}$

10) $5.600\overline{69}$

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____



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

1) $0.3\overline{338}$

$$\begin{array}{r} f = 0.3\overline{338} \\ 10,000f = 3338.\overline{38} \\ - 100f = 0033.\overline{38} \\ \hline 9900f = 3305 \end{array}$$

$$f = \frac{3305}{9900}$$

2) $0.24\overline{8}$

$$\begin{array}{r} f = 0.24\overline{8} \\ 1,000f = 248.\overline{8} \\ - 100f = 024.\overline{8} \\ \hline 900f = 224 \end{array}$$

$$f = \frac{224}{900}$$

3) $0.595\overline{4}$

$$\begin{array}{r} f = 0.595\overline{4} \\ 10,000f = 5954.\overline{4} \\ - 1,000f = 0595.\overline{4} \\ \hline 9000f = 5359 \end{array}$$

$$f = \frac{5359}{9000}$$

4) $2.899\overline{2}$

$$\begin{array}{r} f = 2.899\overline{2} \\ 10,000f = 28992.\overline{2} \\ - 100f = 00289.\overline{2} \\ \hline 9900f = 28703 \end{array}$$

$$f = \frac{28703}{9900}$$

5) $72.1\overline{3}$

$$\begin{array}{r} f = 72.1\overline{3} \\ 100f = 7213.\overline{3} \\ - 10f = 0721.\overline{3} \\ \hline 90f = 6492 \end{array}$$

$$f = \frac{6492}{90}$$

6) $0.681\overline{81}$

$$\begin{array}{r} f = 0.681\overline{81} \\ 100,000f = 68181.\overline{81} \\ - 1,000f = 00681.\overline{81} \\ \hline 99000f = 67500 \end{array}$$

$$f = \frac{67500}{99000}$$

7) $7.47\overline{3}$

$$\begin{array}{r} f = 7.47\overline{3} \\ 1,000f = 7473.\overline{3} \\ - 100f = 0747.\overline{3} \\ \hline 900f = 6726 \end{array}$$

$$f = \frac{6726}{900}$$

8) $8.9\overline{67}$

$$\begin{array}{r} f = 8.9\overline{67} \\ 1,000f = 8967.\overline{67} \\ - 10f = 0089.\overline{67} \\ \hline 990f = 8878 \end{array}$$

$$f = \frac{8878}{990}$$

9) $62.54\overline{2}$

$$\begin{array}{r} f = 62.54\overline{2} \\ 1,000f = 62542.\overline{2} \\ - 10f = 00625.\overline{2} \\ \hline 990f = 61917 \end{array}$$

$$f = \frac{61917}{990}$$

10) $5.600\overline{69}$

$$\begin{array}{r} f = 5.600\overline{69} \\ 100,000f = 560069.\overline{69} \\ - 1,000f = 005600.\overline{69} \\ \hline 99000f = 554469 \end{array}$$

$$f = \frac{554469}{99000}$$

Answers

1. $\frac{3305}{9900}$
2. $\frac{224}{900}$
3. $\frac{5359}{9000}$
4. $\frac{28703}{9900}$
5. $\frac{6492}{90}$
6. $\frac{67500}{99000}$
7. $\frac{6726}{900}$
8. $\frac{8878}{990}$
9. $\frac{61917}{990}$
10. $\frac{554469}{99000}$



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

1) $3.544\overline{44}$

2) $5.729\overline{5}$

3) $19.2\overline{5}$

4) $0.91\overline{1}$

5) $5.441\overline{9}$

6) $55.74\overline{3}$

7) $2.39\overline{7}$

8) $0.498\overline{4}$

9) $0.89\overline{3}$

10) $0.6187\overline{8}$

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____



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

$$\begin{aligned}
 &1) \quad 3.5444\bar{4} \\
 &f = 3.5444\bar{4} \\
 &\quad 100,000f = 354444.\bar{44} \\
 &\quad - \quad 1,000f = 003544.\bar{44} \\
 &\quad \hline
 &\quad 99000f = 350900 \\
 &f = \frac{350900}{99000}
 \end{aligned}$$

$$\begin{aligned}
 &2) \quad 5.729\bar{5} \\
 &f = 5.729\bar{5} \\
 &\quad 10,000f = 57295.\bar{5} \\
 &\quad - \quad 1,000f = 05729.\bar{5} \\
 &\quad \hline
 &\quad 9000f = 51566 \\
 &f = \frac{51566}{9000}
 \end{aligned}$$

$$\begin{aligned}
 &3) \quad 19.2\bar{5} \\
 &f = 19.2\bar{5} \\
 &\quad 100f = 1925.\bar{5} \\
 &\quad - \quad 10f = 0192.\bar{5} \\
 &\quad \hline
 &\quad 90f = 1733 \\
 &f = \frac{1733}{90}
 \end{aligned}$$

$$\begin{aligned}
 &4) \quad 0.91\bar{1} \\
 &f = 0.91\bar{1} \\
 &\quad 1,000f = 911.\bar{1} \\
 &\quad - \quad 100f = 091.\bar{1} \\
 &\quad \hline
 &\quad 900f = 820 \\
 &f = \frac{820}{900}
 \end{aligned}$$

$$\begin{aligned}
 &5) \quad 5.441\bar{9} \\
 &f = 5.441\bar{9} \\
 &\quad 10,000f = 54419.\bar{19} \\
 &\quad - \quad 100f = 00544.\bar{19} \\
 &\quad \hline
 &\quad 9900f = 53875 \\
 &f = \frac{53875}{9900}
 \end{aligned}$$

$$\begin{aligned}
 &6) \quad 55.74\bar{3} \\
 &f = 55.74\bar{3} \\
 &\quad 1,000f = 55743.\bar{43} \\
 &\quad - \quad 10f = 00557.\bar{43} \\
 &\quad \hline
 &\quad 990f = 55186 \\
 &f = \frac{55186}{990}
 \end{aligned}$$

$$\begin{aligned}
 &7) \quad 2.39\bar{7} \\
 &f = 2.39\bar{7} \\
 &\quad 1,000f = 2397.\bar{97} \\
 &\quad - \quad 10f = 0023.\bar{97} \\
 &\quad \hline
 &\quad 990f = 2374 \\
 &f = \frac{2374}{990}
 \end{aligned}$$

$$\begin{aligned}
 &8) \quad 0.498\bar{4} \\
 &f = 0.498\bar{4} \\
 &\quad 10,000f = 4984.\bar{84} \\
 &\quad - \quad 100f = 0049.\bar{84} \\
 &\quad \hline
 &\quad 9900f = 4935 \\
 &f = \frac{4935}{9900}
 \end{aligned}$$

$$\begin{aligned}
 &9) \quad 0.89\bar{3} \\
 &f = 0.89\bar{3} \\
 &\quad 1,000f = 893.\bar{93} \\
 &\quad - \quad 10f = 008.\bar{93} \\
 &\quad \hline
 &\quad 990f = 885 \\
 &f = \frac{885}{990}
 \end{aligned}$$

$$\begin{aligned}
 &10) \quad 0.6187\bar{8} \\
 &f = 0.6187\bar{8} \\
 &\quad 100,000f = 61878.\bar{78} \\
 &\quad - \quad 1,000f = 00618.\bar{78} \\
 &\quad \hline
 &\quad 99000f = 61260 \\
 &f = \frac{61260}{99000}
 \end{aligned}$$

Answers

1. $\frac{350900}{99000}$
2. $\frac{51566}{9000}$
3. $\frac{1733}{90}$
4. $\frac{820}{900}$
5. $\frac{53875}{9900}$
6. $\frac{55186}{990}$
7. $\frac{2374}{990}$
8. $\frac{4935}{9900}$
9. $\frac{885}{990}$
10. $\frac{61260}{99000}$



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

1) $3.60\overline{17}$

2) $0.35\overline{11}$

3) $8.2\overline{1}$

4) $0.7\overline{72}$

5) $96.3\overline{60}$

6) $8.5\overline{37}$

7) $59.4\overline{3}$

8) $0.48\overline{9}$

9) $6.23\overline{8}$

10) $0.985\overline{4}$

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____



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

$$\begin{aligned}
 &1) \ 3.60\overline{17} \\
 &f = 3.60\overline{17} \\
 &10,000f = 36017.\overline{17} \\
 &- \quad 100f = 00360.\overline{17} \\
 &\hline
 &9900f = 35657 \\
 &f = \frac{35657}{9900}
 \end{aligned}$$

$$\begin{aligned}
 &2) \ 0.35\overline{11} \\
 &f = 0.35\overline{11} \\
 &10,000f = 3511.\overline{11} \\
 &- \quad 100f = 0035.\overline{11} \\
 &\hline
 &9900f = 3476 \\
 &f = \frac{3476}{9900}
 \end{aligned}$$

$$\begin{aligned}
 &3) \ 8.2\overline{1} \\
 &f = 8.2\overline{1} \\
 &100f = 821.\overline{1} \\
 &- \quad 10f = 082.\overline{1} \\
 &\hline
 &90f = 739 \\
 &f = \frac{739}{90}
 \end{aligned}$$

$$\begin{aligned}
 &4) \ 0.7\overline{72} \\
 &f = 0.7\overline{72} \\
 &1,000f = 772.\overline{72} \\
 &- \quad 10f = 007.\overline{72} \\
 &\hline
 &990f = 765 \\
 &f = \frac{765}{990}
 \end{aligned}$$

$$\begin{aligned}
 &5) \ 96.3\overline{60} \\
 &f = 96.3\overline{60} \\
 &1,000f = 96360.\overline{60} \\
 &- \quad 10f = 00963.\overline{60} \\
 &\hline
 &990f = 95397 \\
 &f = \frac{95397}{990}
 \end{aligned}$$

$$\begin{aligned}
 &6) \ 8.5\overline{37} \\
 &f = 8.5\overline{37} \\
 &1,000f = 8537.\overline{37} \\
 &- \quad 10f = 0085.\overline{37} \\
 &\hline
 &990f = 8452 \\
 &f = \frac{8452}{990}
 \end{aligned}$$

$$\begin{aligned}
 &7) \ 59.4\overline{3} \\
 &f = 59.4\overline{3} \\
 &100f = 5943.\overline{3} \\
 &- \quad 10f = 0594.\overline{3} \\
 &\hline
 &90f = 5349 \\
 &f = \frac{5349}{90}
 \end{aligned}$$

$$\begin{aligned}
 &8) \ 0.48\overline{9} \\
 &f = 0.48\overline{9} \\
 &1,000f = 489.\overline{9} \\
 &- \quad 100f = 048.\overline{9} \\
 &\hline
 &900f = 441 \\
 &f = \frac{441}{900}
 \end{aligned}$$

$$\begin{aligned}
 &9) \ 6.23\overline{8} \\
 &f = 6.23\overline{8} \\
 &1,000f = 6238.\overline{8} \\
 &- \quad 100f = 0623.\overline{8} \\
 &\hline
 &900f = 5615 \\
 &f = \frac{5615}{900}
 \end{aligned}$$

$$\begin{aligned}
 &10) \ 0.985\overline{4} \\
 &f = 0.985\overline{4} \\
 &10,000f = 9854.\overline{4} \\
 &- \quad 1,000f = 0985.\overline{4} \\
 &\hline
 &9000f = 8869 \\
 &f = \frac{8869}{9000}
 \end{aligned}$$

Answers

1. $\frac{35657}{9900}$
2. $\frac{3476}{9900}$
3. $\frac{739}{90}$
4. $\frac{765}{990}$
5. $\frac{95397}{990}$
6. $\frac{8452}{990}$
7. $\frac{5349}{90}$
8. $\frac{441}{900}$
9. $\frac{5615}{900}$
10. $\frac{8869}{9000}$