



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

Answers

1) $6.985\overline{5}$

2) $69.8\overline{9}$

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

3) $7.76\overline{28}$

4) $0.1\overline{75}$

5) $0.889\overline{3}$

6) $2.17\overline{1}$

7) $9.7\overline{6}$

8) $3.84\overline{5}$

9) $0.8512\overline{9}$

10) $0.544\overline{5}$



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

Answers

1) $6.985\overline{5}$

$$f = 6.985\overline{5}$$

$$10,000f = 69855.\overline{5}$$

$$\begin{array}{r} 10,000f = 69855.\overline{5} \\ - 1,000f = 06985.\overline{5} \\ \hline 9000f = 62870 \end{array}$$

$$f = \frac{62870}{9000}$$

$$f = \frac{6287}{900}$$

2) $69.8\overline{9}$

$$f = 69.8\overline{9}$$

$$100f = 6989.\overline{9}$$

$$\begin{array}{r} 100f = 6989.\overline{9} \\ - 10f = 0699.\overline{9} \\ \hline 90f = 6291 \end{array}$$

$$f = \frac{6291}{90}$$

$$f = \frac{6291}{90}$$

3) $7.762\overline{8}$

$$f = 7.762\overline{8}$$

$$10,000f = 77628.\overline{28}$$

$$\begin{array}{r} 10,000f = 77628.\overline{28} \\ - 100f = 00776.\overline{28} \\ \hline 9900f = 76852 \end{array}$$

$$f = \frac{76852}{9900}$$

$$f = \frac{76852}{9900}$$

4) $0.17\overline{5}$

$$f = 0.17\overline{5}$$

$$1,000f = 175.\overline{75}$$

$$\begin{array}{r} 1,000f = 175.\overline{75} \\ - 10f = 001.\overline{75} \\ \hline 990f = 174 \end{array}$$

$$f = \frac{174}{990}$$

$$f = \frac{174}{990}$$

5) $0.889\overline{3}$

$$f = 0.889\overline{3}$$

$$10,000f = 8893.\overline{3}$$

$$\begin{array}{r} 10,000f = 8893.\overline{3} \\ - 1,000f = 0889.\overline{3} \\ \hline 9000f = 8004 \end{array}$$

$$f = \frac{8004}{9000}$$

$$f = \frac{8004}{9000}$$

6) $2.17\overline{1}$

$$f = 2.17\overline{1}$$

$$1,000f = 2171.\overline{1}$$

$$\begin{array}{r} 1,000f = 2171.\overline{1} \\ - 100f = 0217.\overline{1} \\ \hline 900f = 1954 \end{array}$$

$$f = \frac{1954}{900}$$

$$f = \frac{1954}{900}$$

7) $9.7\overline{6}$

$$f = 9.7\overline{6}$$

$$100f = 976.\overline{6}$$

$$\begin{array}{r} 100f = 976.\overline{6} \\ - 10f = 097.\overline{6} \\ \hline 90f = 879 \end{array}$$

$$f = \frac{879}{90}$$

$$f = \frac{879}{90}$$

8) $3.84\overline{5}$

$$f = 3.84\overline{5}$$

$$1,000f = 3845.\overline{45}$$

$$\begin{array}{r} 1,000f = 3845.\overline{45} \\ - 10f = 0038.\overline{45} \\ \hline 990f = 3807 \end{array}$$

$$f = \frac{3807}{990}$$

$$f = \frac{3807}{990}$$

9) $0.8512\overline{9}$

$$f = 0.8512\overline{9}$$

$$100,000f = 85129.\overline{29}$$

$$\begin{array}{r} 100,000f = 85129.\overline{29} \\ - 1,000f = 00851.\overline{29} \\ \hline 99000f = 84278 \end{array}$$

$$f = \frac{84278}{99000}$$

$$f = \frac{84278}{99000}$$

10) $0.544\overline{5}$

$$f = 0.544\overline{5}$$

$$10,000f = 5445.\overline{45}$$

$$\begin{array}{r} 10,000f = 5445.\overline{45} \\ - 100f = 0054.\overline{45} \\ \hline 9900f = 5391 \end{array}$$

$$f = \frac{5391}{9900}$$

$$f = \frac{5391}{9900}$$

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.	$\frac{5391}{9900}$