



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

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

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

$$\begin{aligned}
 3) \quad & 7.76\overline{28} \\
 & f = 7.76\overline{28} \\
 & 10,000f = 77628.\overline{28} \\
 & - \quad 100f = 00776.\overline{28} \\
 \hline
 & 9900f = 76852 \\
 & f = \frac{76852}{9900}
 \end{aligned}$$

$$\begin{aligned}
 4) \quad & 0.1\overline{75} \\
 & f = 0.1\overline{75} \\
 & 1,000f = 175.\overline{75} \\
 & - \quad 10f = 001.\overline{75} \\
 \hline
 & 990f = 174 \\
 & f = \frac{174}{990}
 \end{aligned}$$

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

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

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

$$\begin{aligned}
 8) \quad & 3.84\overline{5} \\
 & f = 3.84\overline{5} \\
 & 1,000f = 3845.\overline{45} \\
 & - \quad 10f = 0038.\overline{45} \\
 \hline
 & 990f = 3807 \\
 & f = \frac{3807}{990}
 \end{aligned}$$

$$\begin{aligned}
 9) \quad & 0.851\overline{29} \\
 & f = 0.851\overline{29} \\
 & 100,000f = 85129.\overline{29} \\
 & - \quad 1,000f = 00851.\overline{29} \\
 \hline
 & 99000f = 84278 \\
 & f = \frac{84278}{99000}
 \end{aligned}$$

$$\begin{aligned}
 10) \quad & 0.544\overline{5} \\
 & f = 0.544\overline{5} \\
 & 10,000f = 5445.\overline{45} \\
 & - \quad 100f = 0054.\overline{45} \\
 \hline
 & 9900f = 5391 \\
 & f = \frac{5391}{9900}
 \end{aligned}$$

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. $\frac{5391}{9900}$