



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

Answers

1) $0.86\overline{18}$

2) $8.379\overline{4}$

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

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) $0.736\overline{64}$



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

Answers

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

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

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

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

$$\begin{aligned} 5) \quad & 0.9\overline{80} \\ & f = 0.9\overline{80} \\ & 1,000f = 980.\overline{80} \\ & - \quad 10f = 009.\overline{80} \\ & \hline & 990f = 971 \\ & f = \frac{971}{990} \end{aligned}$$

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

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

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

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

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

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.	$\frac{72928}{99000}$