Converting Repeating Decimals to Fractions

Name:

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

1) 0.576

2) 0.3749

3) $0.22\overline{050}$

4) $7.\overline{7009}$

5) $6.\overline{776}$

6) $0.\overline{948}$

7) $59.\overline{961}$

8) $0.\overline{2848}$

9) $4.\overline{199}$

10) $5.\overline{65}$

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

1-10	90	80	70	60	50	40	30	20	10	0

Converting Repeating Decimals to Fractions

Name: **Answer Key**

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

1) 0.576 —

f = 0.576 —

1,000f = 576.~~76~~

- 10.000000000000000000000000000000000000000000000000000f = 005.76

990f = 571

f = $^{571}/_{990}$

2) 0.3749 –

f = 0.3749 –

10,000f = 3749.~~9~~

- 1,000.000000000000000000000000000000000000000000000000000f = 0375.9

9000f = 3375

f = $^{3375}/_{9000}$

3) 0.22050 —

f = 0.22050 —

100,000f = 22050.~~50~~

- 1,000.000000000000000000000000000000000000000000000000000f = 00220.50

99000f = 21830

f = $^{21830}/_{99000}$

4) 7.7009 –

f = 7.7009 –

10,000f = 77009.~~9~~

- 1,000.000000000000000000000000000000000000000000000000000f = 07701.9

9000f = 69309

f = $^{69309}/_{9000}$

5) 6.776 –

f = 6.776 –

1,000f = 6776.~~6~~

- 100.000000000000000000000000000000000000000000000000000f = 0677.6

900f = 6099

f = $^{6099}/_{900}$

6) 0.948 –

f = 0.948 –

1,000f = 948.~~8~~

- 100.000000000000000000000000000000000000000000000000000f = 094.8

900f = 854

f = $^{854}/_{900}$

7) 59.961 —

f = 59.961 —

1,000f = 59961.~~61~~

- 10.000000000000000000000000000000000000000000000000000f = 00599.61

990f = 59362

f = $^{59362}/_{990}$

8) 0.2848 —

f = 0.2848 —

10,000f = 2848.~~48~~

- 100.000000000000000000000000000000000000000000000000000f = 0028.48

9900f = 2820

f = $^{2820}/_{9900}$

9) 4.199 —

f = 4.199 —

1,000f = 4199.~~99~~

- 10.000000000000000000000000000000000000000000000000000f = 0042.99

990f = 4158

f = $^{4158}/_{990}$

10) 5.65 –

f = 5.65 –

100f = 565.~~5~~

- 10.000000000000000000000000000000000000000000000000000f = 056.5

90f = 509

f = $^{509}/_{90}$

Answers

1. $^{571}/_{990}$
2. $^{3375}/_{9000}$
3. $^{21830}/_{99000}$
4. $^{69309}/_{9000}$
5. $^{6099}/_{900}$
6. $^{854}/_{900}$
7. $^{59362}/_{990}$
8. $^{2820}/_{9900}$
9. $^{4158}/_{990}$
10. $^{509}/_{90}$

1-10	90	80	70	60	50	40	30	20	10	0