

Recurring decimals

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Worked example

Express as a decimal:

$$\frac{1}{3}$$

$$\frac{2}{3}$$

Your turn

Express as a decimal:

$$\frac{4}{3}$$

$$1.\dot{3}$$

Worked example

Express as a decimal:

$$\frac{1}{9}$$

$$\frac{2}{9}$$

Your turn

Express as a decimal:

$$\frac{8}{9}$$

$$0.\dot{8}$$

Worked example

Express as a decimal:

$$\frac{1}{11}$$

$$\frac{2}{11}$$

Your turn

Express as a decimal:

$$\frac{8}{11}$$

0.7 $\dot{2}$

Worked example

Express as a decimal:

$$\frac{1}{15}$$

$$\frac{2}{15}$$

Your turn

Express as a decimal:

$$\frac{4}{15}$$

0.2 $\dot{6}$

Worked example

Express as a decimal:

$$\frac{1}{7}$$

$$\frac{2}{7}$$

Your turn

Express as a decimal:

$$\frac{4}{7}$$

0.571428

Worked example

Express as a decimal:

$$\frac{1}{13}$$

$$\frac{5}{21}$$

Your turn

Express as a decimal:

$$\frac{20}{21}$$

0.952380

Worked example

Express as a simplified fraction:
 $0.22222222 \dots$

$0.88888888 \dots$

Your turn

Express as a simplified fraction:
 $0.777777777 \dots$

$$\frac{7}{9}$$

Worked example

Express as a simplified fraction:
 $0.4949494949 \dots$

$0.5454545454 \dots$

Your turn

Express as a simplified fraction:
 $0.2727272727 \dots$

$$\frac{3}{11}$$

Worked example

Express as a simplified fraction:

0.365365365365 ...

0.279279279279 ...

Your turn

Express as a simplified fraction:

0.837837837837 ...

$$\frac{31}{37}$$

Worked example

Express as a simplified fraction:

0.36536543654 ...

0.263126312631 ...

Your turn

Express as a simplified fraction:

0.789378937893 ...

$$\frac{877}{1111}$$

Worked example

Express as a simplified fraction:

1.4545454545 ...

2.3737373737 ...

Your turn

Express as a simplified fraction:

4.7474747474

$$\frac{470}{99}$$

Worked example

Express as a simplified fraction:

0.142856142856 ...

0.285714285714 ...

Your turn

Express as a simplified fraction:

0.571428571428 ...

$\frac{4}{7}$

Worked example

Express as a simplified fraction:

2.34545454545 ...

3.78989898989 ...

Your turn

Express as a simplified fraction:

7.57979797979 ...

$$\frac{3752}{495}$$

Worked example

Express as a simplified fraction:

2.3456456456456 ...

3.7654654654654 ...

Your turn

Express as a simplified fraction:

7.530930930930 ...

$$\frac{12539}{1665}$$

Worked example

Write the fraction $0.1\dot{3}\dot{6} \times 0.\dot{5}$ as a fraction in its simplest form

Your turn

Write the fraction $0.6\dot{8}\dot{1} \times 0.\dot{1}$ as a fraction in its simplest form

$$\frac{5}{66}$$