

## Terminating and Recurring Decimals

By writing the denominator as a product of its prime factors, decide if each of these fractions would convert to a terminating or recurring decimal.

- (a)  $\frac{1}{8}$       (b)  $\frac{1}{25}$       (c)  $\frac{1}{15}$   
(d)  $\frac{1}{14}$       (e)  $\frac{1}{50}$       (f)  $\frac{1}{16}$   
(g)  $\frac{1}{30}$       (h)  $\frac{1}{12}$       (i)  $\frac{1}{40}$

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Write out the following recurring decimals to show the first 10 decimal places.

- (a)  $0.\dot{4}$               (b)  $0.\dot{7}$   
(c)  $0.\dot{1}\dot{4}$               (d)  $0.\dot{2}\dot{3}$   
(e)  $0.\dot{1}2\dot{3}$               (f)  $0.\dot{4}6\dot{1}$   
(g)  $0.0\dot{5}$               (h)  $0.1\dot{7}\dot{2}$

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(g)  $0.0\dot{5}$               (h)  $0.1\dot{7}\dot{2}$

Use your calculator to convert the following fractions into terminating or recurring decimals.

- (a)  $\frac{4}{9}$       (b)  $\frac{2}{5}$       (c)  $\frac{3}{10}$   
(d)  $\frac{7}{11}$       (e)  $\frac{5}{16}$       (f)  $\frac{1}{8}$   
(g)  $\frac{4}{7}$       (h)  $\frac{29}{100}$       (i)  $\frac{3}{35}$

Use your calculator to convert the following fractions into terminating or recurring decimals.

- (a)  $\frac{4}{9}$       (b)  $\frac{2}{5}$       (c)  $\frac{3}{10}$   
(d)  $\frac{7}{11}$       (e)  $\frac{5}{16}$       (f)  $\frac{1}{8}$   
(g)  $\frac{4}{7}$       (h)  $\frac{29}{100}$       (i)  $\frac{3}{35}$

Use your calculator to convert the following fractions into recurring decimals.

- (a)  $\frac{1}{9}$       (b)  $\frac{2}{9}$       (c)  $\frac{3}{9}$

Can you spot a pattern?

Use your calculator to convert the following fractions into recurring decimals.

- (a)  $\frac{1}{9}$       (b)  $\frac{2}{9}$       (c)  $\frac{3}{9}$

Can you spot a pattern?

Use your calculator to convert the following fractions into recurring decimals.

- (a)  $\frac{12}{99}$       (b)  $\frac{13}{99}$       (c)  $\frac{14}{99}$

Can you spot a pattern?

Use your calculator to convert the following fractions into recurring decimals.

- (a)  $\frac{12}{99}$       (b)  $\frac{13}{99}$       (c)  $\frac{14}{99}$

Can you spot a pattern?