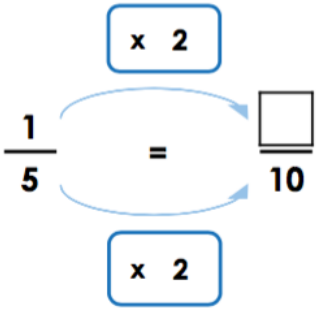
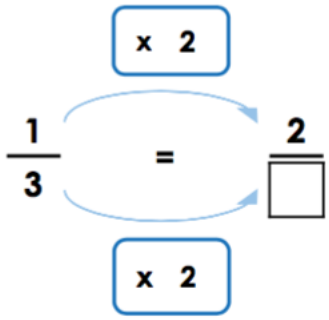
Green
Equivalent fractions and decimals

Complete the missing numbers in the calculation below.



Complete the missing numbers in the calculation below.



Complete the fraction so that it is equivalent to $\frac{1}{7}$.

$$\frac{2}{\square}$$

I multiplied the numerator by _____ .

I multiplied the denominator by _____ .

Complete the fraction so that it is equivalent to $\frac{1}{6}$.

$$\frac{\square}{12}$$

I multiplied the numerator by _____ .

I multiplied the denominator by _____ .

Use your knowledge of equivalent fractions to group the fractions below and find the odd one out.

$\frac{2}{6}$ $\frac{1}{3}$ $\frac{2}{12}$

Explain the reasons for your groupings.

Using the digit cards below, create two equivalent fractions.

$\frac{\square}{\square}$ $\frac{\square}{\square}$

1 8 4 16

4 2

Which decimal is shown on the place value grid?

Ones	tenths	hundredths
		

Write an equivalent fraction.

Circle the fraction that equals the decimal.

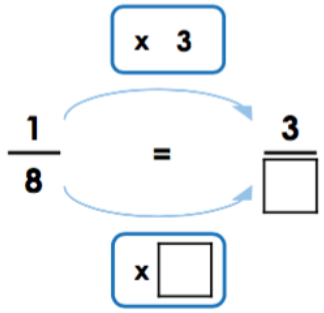
0.25

$\frac{3}{4}$

$\frac{1}{4}$

Yellow
Equivalent fractions and decimals

Complete the missing numbers in the calculation below.



Which fractions are equivalent to $\frac{1}{3}$?

$\frac{2}{6}$ $\frac{4}{10}$ $\frac{4}{12}$ $\frac{3}{9}$ $\frac{3}{6}$

Write a fraction which is equivalent to $\frac{1}{5}$.

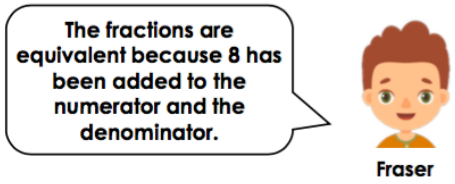
$\frac{\square}{\square}$

I multiplied the numerator by _____ .

I multiplied the denominator by _____ .

Fraser is looking at the fractions below.

$\frac{1}{4} = \frac{9}{12}$

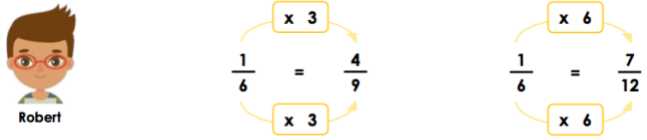


Is he correct? Convince me.

Robert is finding fractions that are equivalent to the fraction below.

$\frac{1}{6}$

He has shown his working out.



What mistake has Robert made? Explain your answer.

Which fraction is equivalent to the decimal?

0.75

$\frac{4}{8}$ $\frac{3}{12}$ $\frac{9}{12}$

Sidney the snail travels 0.25m in one hour. Lucy the ladybird travels $\frac{50}{100}$m in one hour. Who travels furthest?

Explain how you know.

I'm thinking of a decimal.

The hundredths digit is five.

It is equal to one quarter.

What is my decimal?

Red
Equivalent fractions and decimals

Copy and complete the following calculations to find the equivalent fractions.

A. $\square \times \square$: $\frac{\square}{8} = \frac{27}{72}$; $\times \square$

B. $\div \square$: $\frac{5}{13} = \frac{15}{\square}$; $\div \square$

C. $\times \square$: $\frac{7}{\square} = \frac{21}{27}$; $\times \square$

D. $\div \square$: $\frac{3}{5} = \frac{\square}{75}$; $\div \square$

Write two fractions equivalent to $\frac{12}{20}$.

$\square$

I multiplied the numerator by _____ .
I multiplied the denominator by _____ .

$\square$

I divided the numerator by _____ .
I divided the denominator by _____ .

Emile the Explorer is lost in the forest and needs some help to find her way through the maze. She can move horizontally or vertically to find her way home.

$\frac{2}{3}$	$\frac{12}{18}$	$\frac{8}{12}$	$\frac{6}{9}$	$\frac{14}{21}$	$\frac{48}{60}$	$\frac{32}{48}$	$\frac{6}{7}$
$\frac{4}{5}$	$\frac{24}{30}$	$\frac{36}{45}$	$\frac{16}{20}$	$\frac{4}{6}$	$\frac{18}{27}$	$\frac{16}{24}$	$\frac{10}{15}$
$\frac{6}{9}$	$\frac{32}{40}$	$\frac{12}{15}$	$\frac{40}{50}$	$\frac{28}{35}$	$\frac{8}{10}$	$\frac{44}{55}$	$\frac{20}{25}$
$\frac{5}{9}$	$\frac{40}{42}$	$\frac{55}{66}$	$\frac{30}{36}$	$\frac{11}{15}$	$\frac{15}{18}$	$\frac{50}{60}$	$\frac{35}{42}$
$\frac{5}{6}$	$\frac{20}{24}$	$\frac{14}{18}$	$\frac{10}{12}$	$\frac{45}{54}$	$\frac{25}{30}$	$\frac{8}{10}$	$\frac{3}{4}$

Home

Explore the different routes that Emile can take to find her way home by following the path of equivalent fractions.

Phoebe is looking at the fractions below.

$\frac{9}{12} = \frac{15}{20} = \frac{21}{28}$

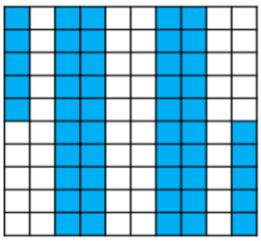
The fractions are all equal because they are equivalent to $\frac{6}{8}$.

Phoebe

Is she correct? Convince me.

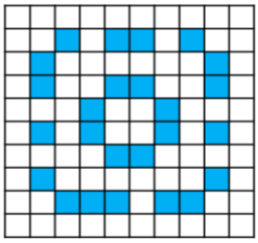
Which fraction is shown on each hundred square?
Which hundred square shows 0.25 shaded?

A.



$\frac{4}{10}$ $\frac{60}{100}$ $\frac{1}{2}$

B.



$\frac{10}{100}$ $\frac{4}{16}$ $\frac{40}{100}$

Sort these fractions and decimals into two groups. Add your own labels.

three quarters | 0.25 | 0.75 | $\frac{1}{2}$ | a half

$\frac{1}{4}$ | one quarter | 0.5 | $\frac{3}{4}$

Alice gives each guest a cupcake at her party. The table below shows how much of each cake was eaten by each guest.

Name of guest	Amount of cake eaten
Claire	$\frac{9}{12}$
Callum	0.75
Cody	$\frac{5}{20}$
Casey	0.25

Alice says,

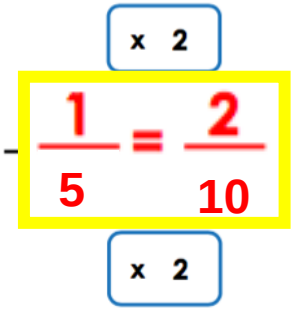
Casey ate more cake than Cody.

Is she correct? Explain how you know.

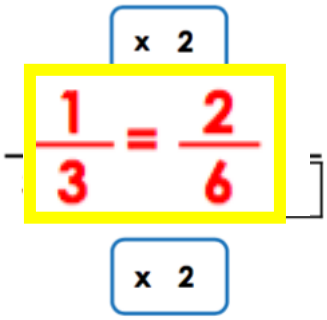
Which children ate more than half of their cupcake?

Green Answers
Equivalent fractions and decimals

Complete the missing numbers in the calculation below.



Complete the missing numbers in the calculation below.



Complete the fraction so that it is equivalent to $\frac{1}{7}$.

$\frac{2}{14}$, multiply by 2

I multiplied the numerator by ____ .

I multiplied the denominator by ____ .

Complete the fraction so that it is eq[illegible] $\frac{1}{6}$.

$\frac{2}{12}$, multiply by 2

I multiplied the numerator by ____ .

I multiplied the denominator by ____ .

Use your knowledge of equivalent fractions to group the fractions below and find the odd one out.

$\frac{2}{12}$ is the odd one out because $\frac{2}{6}$ and $\frac{1}{3}$ can be grouped as equivalents.

6 3 12

Explain the reasons for your groupings.

Using the digit cards below, create two equivalent fractions.

$\frac{\square}{\square} = \frac{\square}{\square}$

Various answers, for example: $\frac{1}{4}$, $\frac{2}{8}$

4 2

Which decimal is shown on the place value grid?

Ones	tenths	[illegible]s
●	● ● ● ● ●	

0.5

Write an equivalent fraction.

Circle the fraction that equals the decimal.

$\frac{1}{4}$ 0.25 $\frac{3}{4}$ $\frac{1}{4}$

Yellow Answers
Equivalent fractions and decimals

Complete the missing numbers in the calculation below.

x 3

multiply by 3, 24

x ☐

Which fractions are equivalent to $\frac{1}{3}$?

$\frac{2}{6}$, $\frac{3}{9}$ and $\frac{4}{12}$

$\frac{4}{12}$

$\frac{3}{9}$ $\frac{2}{6}$

Write a fraction which is equivalent to

Various answers, for example:

$\frac{2}{10}$, multiply by 2; $\frac{3}{15}$, multiply by 3

I multiplied the numerator by ____ .

I multiplied the denominator by ____ .

Fraser is looking at the fractions

Fraser is incorrect because the numerator and denominator need to be multiplied by 8 to be equivalent, rather than have 8 added.

Fraser

Is he correct? Convince me.

Robert has not multiplied the numerators and denominators to find the equivalent fractions, he has added. He should have multiplied the numerator and denominator of the first fraction by 3 and the second fraction by 6 to find the equivalent fractions.

Robert

$\frac{1}{6} = \frac{4}{9}$ (x 3)

$\frac{1}{6} = \frac{7}{12}$ (x 6)

What mistake has Robert made? Explain your answer.

action is equivalent to the decimal?

0.75

$\frac{4}{8}$

$\frac{3}{12}$

$\frac{9}{12}$

$\frac{9}{12}$

Lucy the ladybird travels furthest because $\frac{50}{100}$ m is equivalent to $\frac{1}{2}$ m or 0.5m and Sidney the snail only travels 0.25m or $\frac{1}{4}$ m.

I'm thinking of a decimal.

The hundredths digit is five.

It is equal to one quarter.

What is my decimal? 0.25

Red Answers
Equivalent fractions and decimals

Copy and complete the following calculations to find the equivalent fractions.

A: 3, x 9, x 9; B: 39, ÷ 3, ÷ 3; C: 9, x 3, x 3; D: 45, ÷ 15, ÷ 15

$\square/8 = 27/72$ (x □) $\quad 5/13 = \square/15$ (÷ □) $\quad 7/\square = 21/27$ (x □) $\quad 3/5 = \square/75$ (÷ □)

Various answers, for example:
$\frac{3}{5}$, divide by 4; $\frac{24}{40}$, multiply by 2

I multiplied the denominator by _____ .

I divided the numerator by _____ .
I divided the denominator by _____ .

2/3	12/18	8/12	6/9	14/21	48/60	32/48	6/7
4/5	24/30	36/45	16/20	4/6	18/27	16/24	10/15
6/9	32/40	12/15	40/50	28/35	8/10	44/55	20/25
5/9	40/42	55/66	30/36	11/15	15/18	50/60	35/42
5/6	20/24	14/18	10/12	45/54	25/30	8/10	3/4
6	24	18	12	54	30	10	4

Home

Various answers. E.g.
Explore the different routes that Emile can take to find her way home by following the path of equivalent fractions.

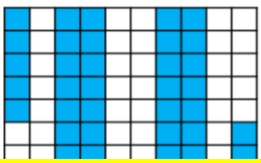
Phoebe is looking at the fractions

Phoebe is correct because all three fractions can be simplified to $\frac{3}{4}$ which is equivalent to $\frac{6}{8}$.

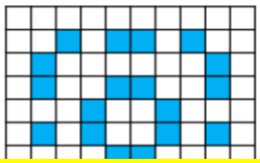
equivalent to $\frac{6}{8}$.

Phoebe

Which fraction is shown on each hundred square?
Which hundred square shows 0.25 shaded?

A. 

$\frac{4}{10}$ $\quad \frac{60}{100}$

B. 

$\frac{10}{100}$ $\quad \frac{4}{16}$

A = $\frac{1}{2}$ B = $\frac{4}{16}$; B shows 0.25 (or one quarter) shaded.

Various possible answers, for example:

Less than a half	A half or more
one quarter	three quarters
0.25	a half
$\frac{1}{4}$	0.5
	0.75
	$\frac{3}{4}$
	$\frac{1}{2}$

Alice gives each guest a cupcake at her party. The table below shows how much of each cake was eaten by each guest.

Cody	$\frac{5}{20}$
Casey	0.25

Is she correct? Explain how you know.

She is not correct. $\frac{5}{20}$ is the same as 0.25, so Cody and Casey both ate the same amount of cake. Callum and Claire ate more than half of their cakes because they both ate three quarters (or 0.75).

Which children ate more than half of their cupcake?