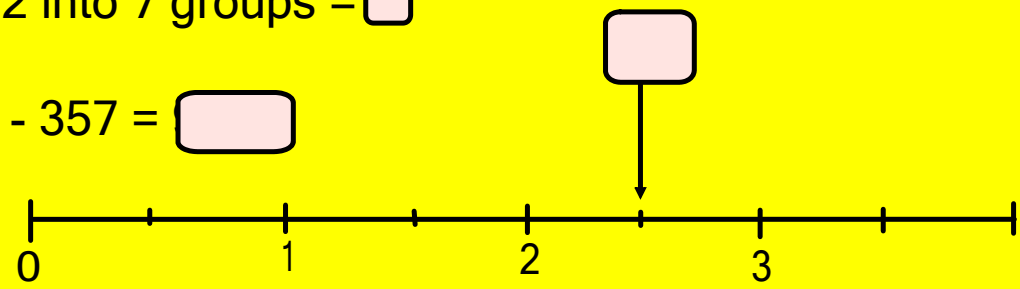
Give me 5!

4 x 9 = ☐

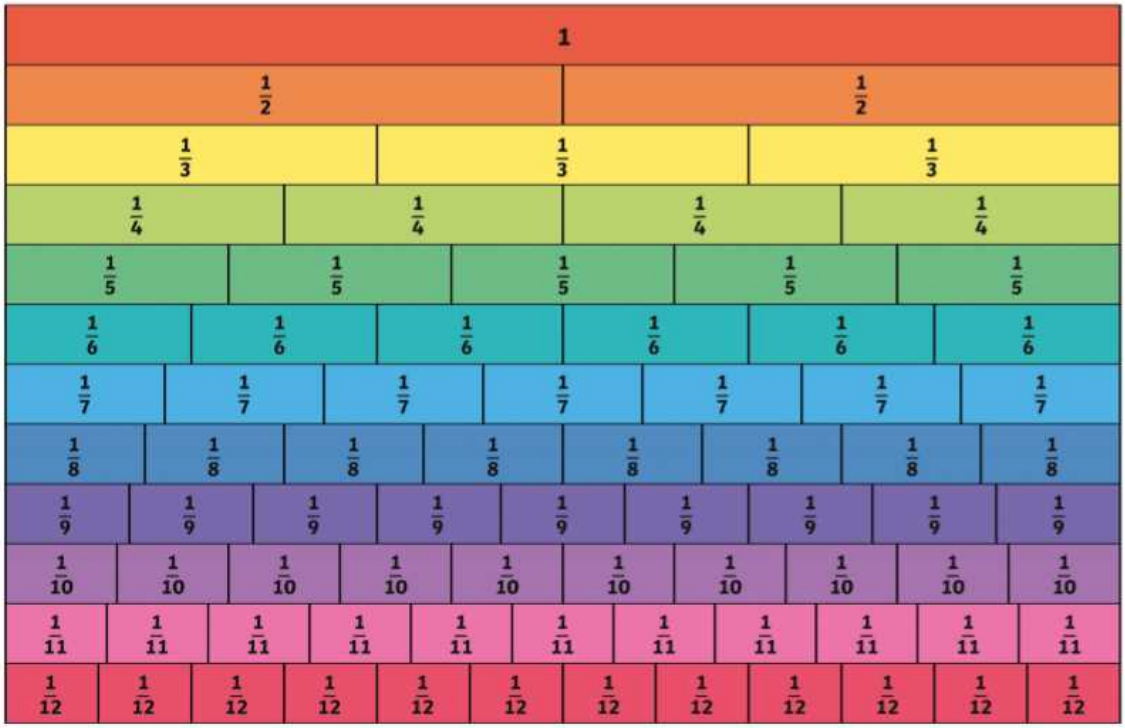
5397 + 198 = ☐

Put 42 into 7 groups = ☐

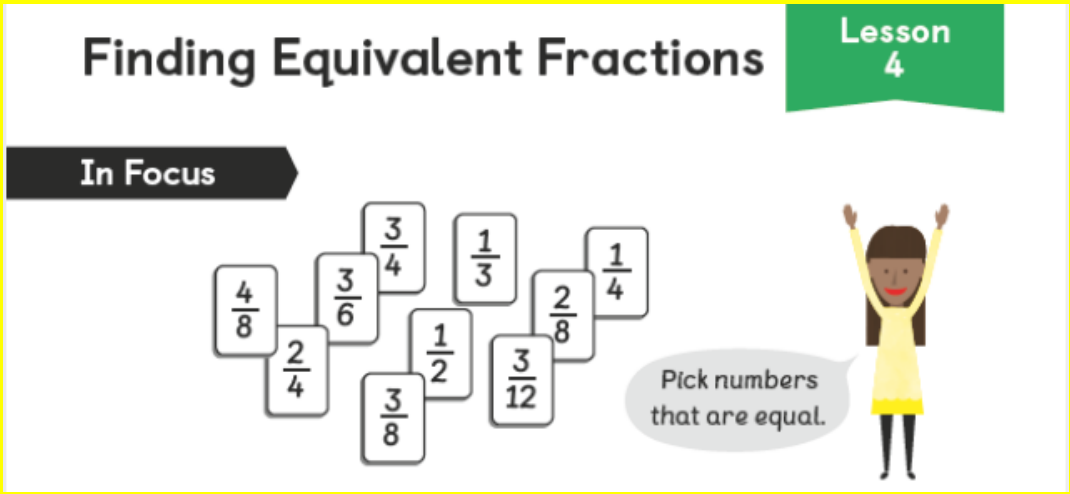
9382 - 357 = ☐



What does the term 'equivalent' mean?



Which fractions are equivalent?



How do you know? Can you prove it?

Can you use multiplication or division facts to explain?

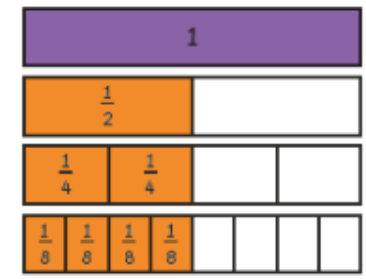
Let's Learn

1 picks $\frac{2}{4}$ $\frac{1}{2}$ $\frac{4}{8}$.

Is $\frac{1}{2} = \frac{2}{4} = \frac{4}{8}$?

1 half = 2 quarters

1 half = 4 eighths



So, $\frac{1}{2} = \frac{2}{4} = \frac{4}{8}$

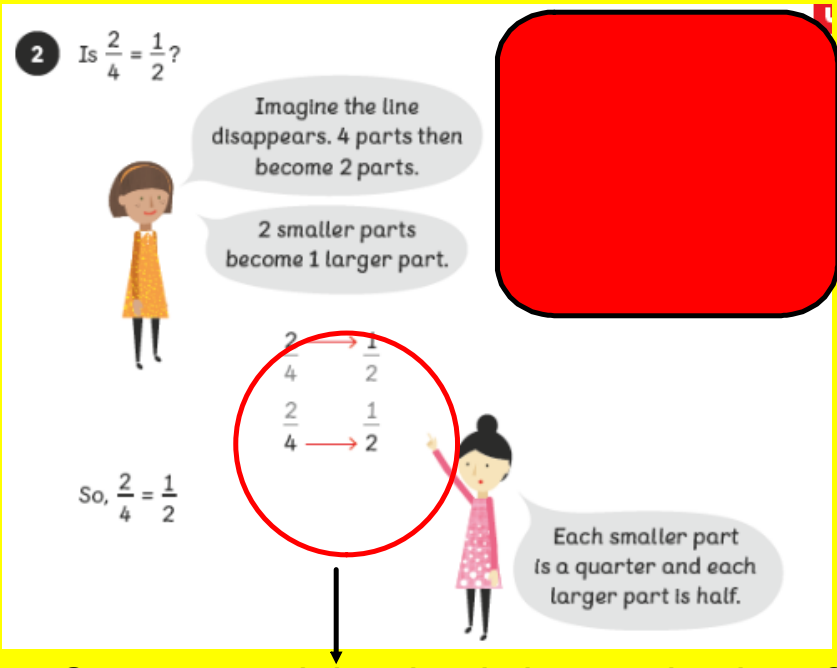
They are equivalent fractions.

We can see that these fractions are equivalent by using a fraction wall.

What is the same?

What is different?

How could halving and doubling also help prove this?



Can you use a fraction wall to prove that

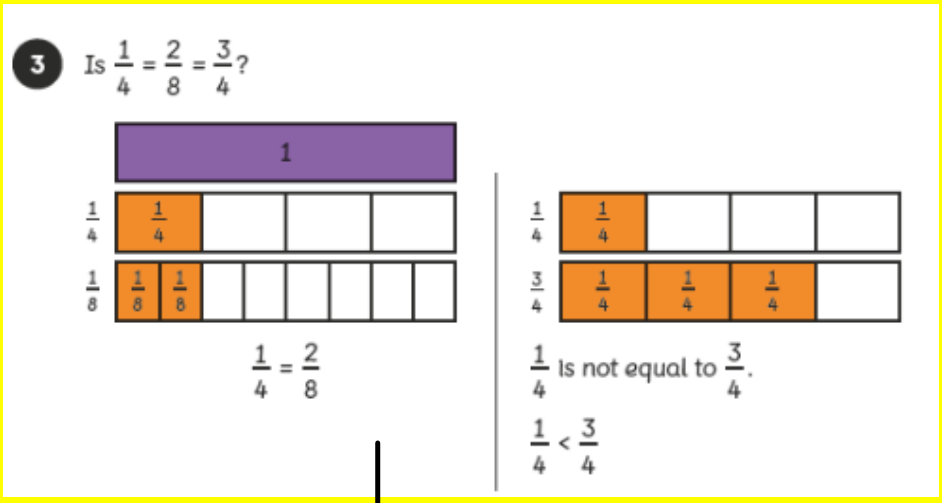
$$\frac{1}{2} = \frac{2}{4}$$

Can you explain what is happening here?
Think about how multiplication and division has been used?

3 Is $\frac{1}{4} = \frac{2}{8} = \frac{3}{4}$?

Are these fractions equivalent or not?
Why?
Can you prove it using a fraction wall

Which multiplication or division facts do you know that can prove which fractions are equivalent?

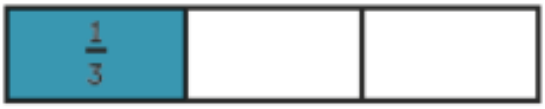


Which multiplication or division facts do you know that can prove which fractions are equivalent?

Are these fractions equivalent or not?
Why?
Can you prove it using a fraction wall

Guided Practice

1



$\frac{1}{3} = \frac{\square}{6} = \frac{3}{\square}$

$\frac{2}{3} = \frac{6}{\square} = \frac{\square}{6}$

2

$\frac{1}{5} = \frac{2}{\square} = \frac{3}{\square}$

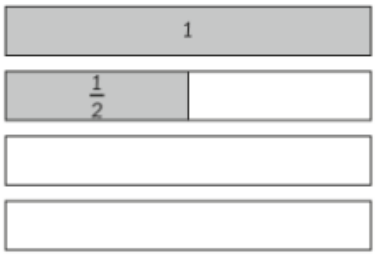
$\frac{3}{5} = \frac{\square}{10} = \frac{\square}{\square}$

Worksheet 4

Finding Equivalent Fractions

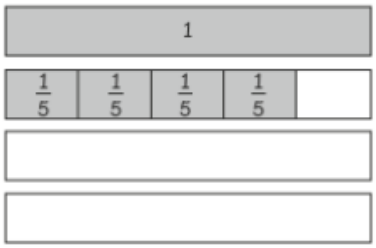
1 Divide and shade the bars to show the equivalent fractions.
Fill in the blanks.

(a)



$\frac{1}{2} = \frac{\square}{4} = \frac{3}{\square}$

(b)



$\frac{4}{5} = \frac{\square}{10} = \frac{12}{\square} = \frac{\square}{20}$

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2 Fill in the blanks.

(a) $\frac{1}{4} = \frac{\square}{8} = \frac{3}{\square}$

$\frac{2}{4} = \frac{\square}{12} = \frac{1}{\square}$

$\frac{3}{4} = \frac{\square}{16} = \frac{15}{\square}$

(b) $\frac{1}{6} = \frac{\square}{12} = \frac{4}{\square}$

$\frac{2}{6} = \frac{\square}{3} = \frac{3}{\square}$

$\frac{5}{6} = \frac{\square}{18} = \frac{25}{\square}$

(c) $\frac{1}{7} = \frac{\square}{21} = \frac{2}{\square}$

$\frac{3}{7} = \frac{\square}{28} = \frac{9}{\square}$

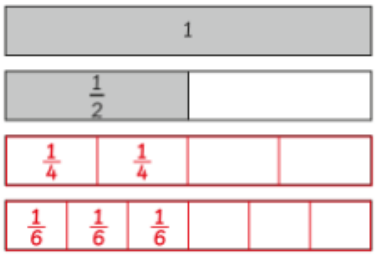
$\frac{6}{7} = \frac{\square}{49} = \frac{30}{\square}$

Answers

Finding Equivalent Fractions

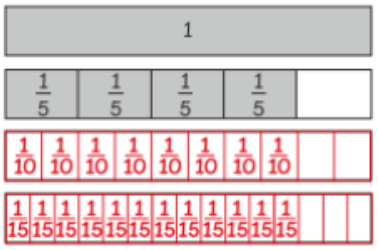
1 Divide and shade the bars to show the equivalent fractions. Fill in the blanks.

(a)



$\frac{1}{2} = \frac{2}{4} = \frac{3}{6}$

(b)



$\frac{4}{5} = \frac{8}{10} = \frac{12}{15} = \frac{16}{20}$

Answers

2 Fill in the blanks.

(a) $\frac{1}{4} = \frac{2}{8} = \frac{3}{12}$

$\frac{2}{4} = \frac{6}{12} = \frac{1}{2}$

$\frac{3}{4} = \frac{12}{16} = \frac{15}{20}$

(b) $\frac{1}{6} = \frac{2}{12} = \frac{4}{24}$

$\frac{2}{6} = \frac{1}{3} = \frac{3}{9}$

$\frac{5}{6} = \frac{15}{18} = \frac{25}{30}$

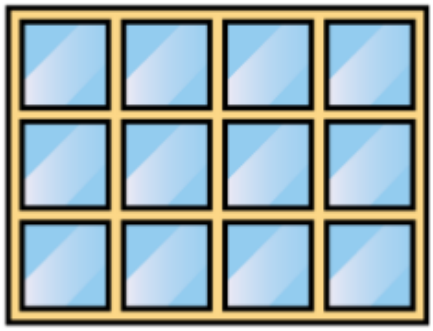
(c) $\frac{1}{7} = \frac{3}{21} = \frac{2}{14}$

$\frac{3}{7} = \frac{12}{28} = \frac{9}{21}$

$\frac{6}{7} = \frac{42}{49} = \frac{30}{35}$

Challenge

How many equivalent fractions can you see in this picture?



Eva says,

I know that $\frac{3}{4}$ is equivalent to $\frac{3}{8}$ because the numerators are the same.

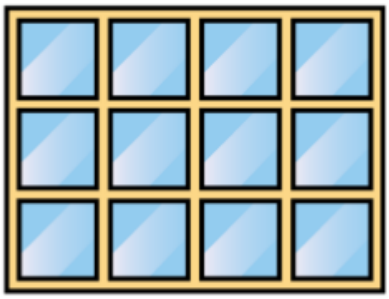
Is Eva correct?
Explain why.

Ron has two strips of the same sized paper.
He folds the strips into different sized fractions.
He shades in three equal parts on one strip and six equal parts on the other strip.
The shaded areas are equal.

What fractions could he have folded his strips into?

Challenge Answers

How many equivalent fractions can you see in this picture?



Children can give a variety of possibilities.
Examples:

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

$\frac{1}{4} = \frac{3}{12}$

Ron has two strips of the same sized paper.
He folds the strips into different sized fractions.
He shades in three equal parts on one strip and six equal parts on the other strip.
The shaded areas are equal.

What fractions could he have folded his strips into?

Ron could have folded his strips into sixths and twelfths, quarters and eighths or any other fractions where one of the denominators is double the other.

Eva says,

I know that $\frac{3}{4}$ is equivalent to $\frac{3}{8}$ because the numerators are the same.

Is Eva correct?
Explain why.

Eva is not correct.
$\frac{3}{4}$ is equivalent to $\frac{6}{8}$
When the numerators are the same, the larger the denominator, the smaller the fraction.