

Give me 5!



1. $499 + 211 =$

2. $561 - 322 =$

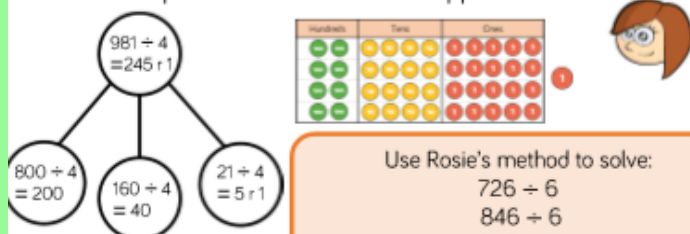
3. $45 \div 5 =$

4. $120 \div 10 =$

5. $46 \times 4 =$

Extension:

Rosie is using flexible partitioning to divide 3-digit numbers. She uses her place value counters to support her.



Use Rosie's method to solve:

$$726 \div 6$$

$$846 \div 6$$

$$846 \div 7$$



What does the term 'equivalent' mean again?

Can you write down all the equivalent fractions
that you know.

Finding Equivalent Fractions

Lesson 5

In Focus



Is it possible to write
 $\frac{1}{2}$ as tenths?



How about $\frac{1}{4}$?

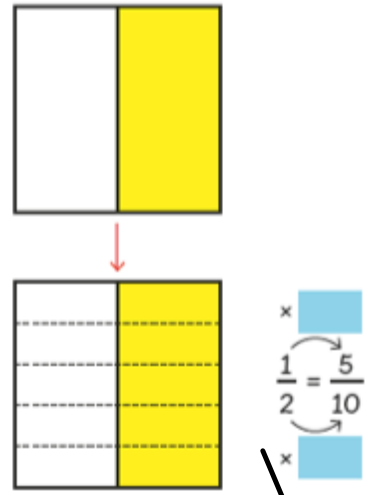
Can we use our 2 times table or 10 times table to help us?

What has happened to change the denominator (2 to 10)?

What if we did the same to the numerator?

Let's Learn

1 $\frac{1}{2} = \frac{\square}{10}$



$\frac{1}{2} = \frac{5}{10}$

1 half is equal to 5 tenths.

What has the numerator multiplied by?

What has the denominator multiplied by?

2 Is $\frac{1}{4} = \frac{\square}{10}$ possible?

How about $\frac{1}{4} = \frac{\square}{100}$?

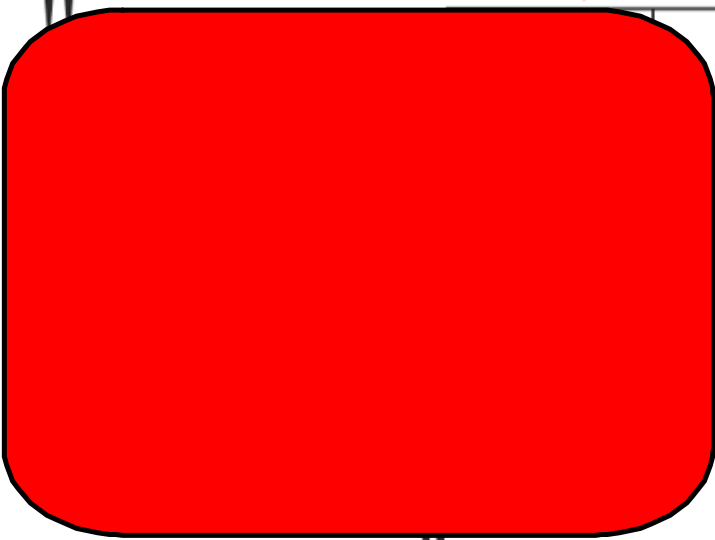
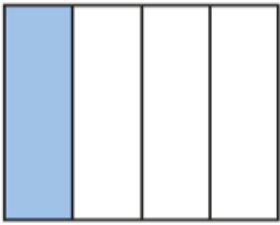
How can we get 4 equal parts to become 100 equal parts?

Is this possible?
Why or why not?
Can you check using your fraction wall.

What can we do to the denominator to make it 100?

Can we also do this with the numerator?

What fraction do we end up with?



2 Is $\frac{1}{4} = \frac{\square}{10}$ possible?

How about $\frac{1}{4} = \frac{\square}{100}$?

How can we get 4 equal parts to become 100 equal parts?

Make this into 25 equal parts.

1 quarter is equal to 25 hundredths.

$\frac{1}{4}$ and $\frac{25}{100}$ are equivalent fractions.

Is this possible?
Why or why not?
Can you check using
your fraction wall.

What can we do to the
denominator to make it 100?

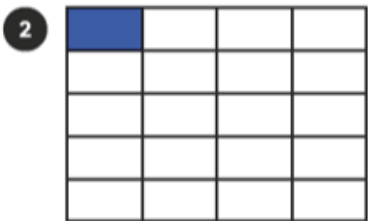
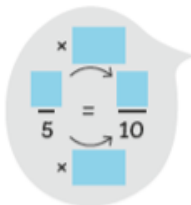
Can we also do this with
the numerator?

What fraction do we end up
with?

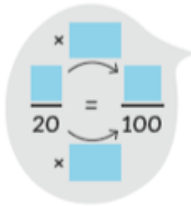
Guided Practice



$$\frac{1}{5} = \frac{\text{blue square}}{10}$$
$$\frac{2}{5} = \frac{\text{blue square}}{10}$$
$$\frac{4}{5} = \frac{\text{blue square}}{10}$$



$$\frac{1}{20} = \frac{\text{blue square}}{100}$$
$$\frac{3}{20} = \frac{\text{blue square}}{100}$$
$$\frac{19}{20} = \frac{\text{blue square}}{100}$$



Equivalent Fractions

using multiplication

Multiply the numerator and denominator by the same number.

The diagram illustrates the process of creating equivalent fractions from $\frac{1}{2}$ by multiplying both the numerator and denominator by the same number. It shows the sequence: $\frac{1}{2} = \frac{2}{4} = \frac{6}{12} = \frac{60}{120}$. Blue curved arrows connect the fractions, with labels indicating the multiplier: $\times 2$ between $\frac{1}{2}$ and $\frac{2}{4}$, $\times 3$ between $\frac{2}{4}$ and $\frac{6}{12}$, and $\times 10$ between $\frac{6}{12}$ and $\frac{60}{120}$. The same multipliers are also shown below the fractions, pointing to the denominator.

Finding Equivalent Fractions

1 Fill in the blanks.

(a) $\frac{1}{4} = \frac{\boxed{}}{60}$

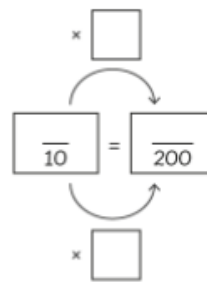
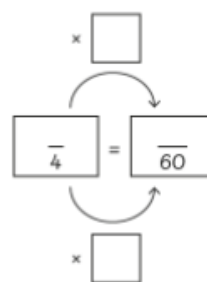
$\frac{2}{4} = \frac{\boxed{}}{60}$

$\frac{3}{4} = \frac{\boxed{}}{60}$

(b) $\frac{1}{10} = \frac{\boxed{}}{200}$

$\frac{2}{10} = \frac{\boxed{}}{200}$

$\frac{3}{10} = \frac{\boxed{}}{200}$



2 Fill in the blanks.

(a) $\frac{1}{8} = \frac{\boxed{}}{40}$

$\frac{3}{8} = \frac{\boxed{}}{40}$

$\frac{5}{8} = \frac{\boxed{}}{40}$

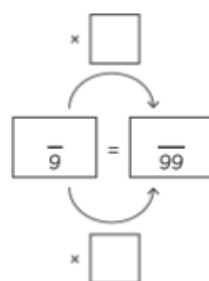
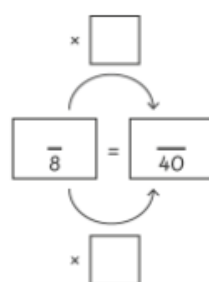
$\frac{7}{8} = \frac{\boxed{}}{40}$

(b) $\frac{1}{9} = \frac{\boxed{}}{99}$

$\frac{4}{9} = \frac{\boxed{}}{99}$

$\frac{7}{9} = \frac{\boxed{}}{99}$

$\frac{8}{9} = \frac{\boxed{}}{99}$



Answers

Finding Equivalent Fractions

1 Fill in the blanks.

(a) $\frac{1}{4} = \frac{15}{60}$

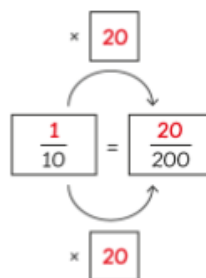
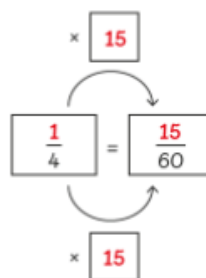
$\frac{2}{4} = \frac{30}{60}$

$\frac{3}{4} = \frac{45}{60}$

(b) $\frac{1}{10} = \frac{20}{200}$

$\frac{2}{10} = \frac{40}{200}$

$\frac{3}{10} = \frac{60}{200}$



Answers

2 Fill in the blanks.

(a) $\frac{1}{8} = \frac{5}{40}$

$\frac{3}{8} = \frac{15}{40}$

$\frac{5}{8} = \frac{25}{40}$

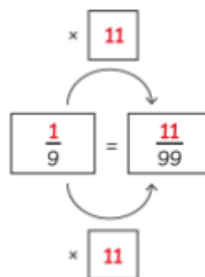
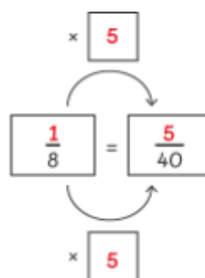
$\frac{7}{8} = \frac{35}{40}$

(b) $\frac{1}{9} = \frac{11}{99}$

$\frac{4}{9} = \frac{44}{99}$

$\frac{7}{9} = \frac{77}{99}$

$\frac{8}{9} = \frac{88}{99}$



Using the diagram, complete the equivalent fractions.



$$\frac{1}{4} = \frac{\square}{12} \quad \frac{1}{\square} = \frac{6}{12} \quad \frac{2}{3} = \frac{\square}{12} \quad \frac{5}{12} = \frac{\square}{24}$$

Complete:

$$\frac{1}{4} = \frac{2}{\square} = \frac{\square}{12} = \frac{4}{\square} = \frac{\square}{100} = \frac{\square}{500}$$

Tommy is finding equivalent fractions.

$$\frac{3}{4} = \frac{5}{6} = \frac{7}{8} = \frac{9}{10}$$

He says,

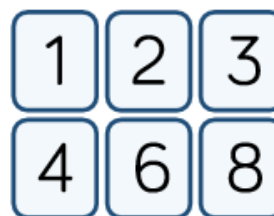


I did the same thing to the numerator and the denominator so my fractions are equivalent.

Do you agree with Tommy?
Explain your answer.

Challenge

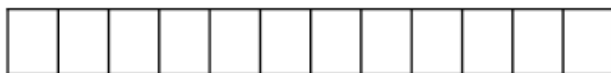
Use the digit cards to complete the equivalent fractions.



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

How many different ways can you find?

Using the diagram, complete the equivalent fractions.



$$\frac{1}{4} = \frac{3}{12} \quad \frac{1}{2} = \frac{6}{12} \quad \frac{2}{3} = \frac{8}{12} \quad \frac{5}{12} = \frac{10}{24}$$

Complete:

$$\frac{1}{4} = \frac{2}{8} = \frac{3}{12} = \frac{4}{16} = \frac{25}{100} = \frac{125}{500}$$

Tommy is finding equivalent fractions.

$$\frac{3}{4} = \frac{5}{6} = \frac{7}{8} = \frac{9}{10}$$

He says,



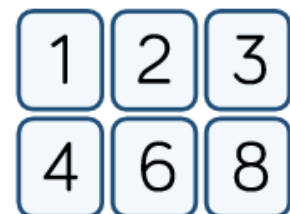
I did the same thing to the numerator and the denominator so my fractions are equivalent.

Do you agree with Tommy?
Explain your answer.

Tommy is wrong. He has added two to the numerator and denominator each time. When you find equivalent fractions you either need to multiply or divide the numerator and denominator by the same number.

Challenge Answers

Use the digit cards to complete the equivalent fractions.



$$\frac{\boxed{}}{\boxed{}} = \frac{\boxed{}}{\boxed{}}$$

How many different ways can you find?

Possible answers:

$$\frac{1}{2} = \frac{3}{6}, \frac{1}{2} = \frac{4}{8},$$

$$\frac{1}{3} = \frac{2}{6}, \frac{1}{4} = \frac{2}{8},$$

$$\frac{3}{4} = \frac{6}{8}, \frac{2}{3} = \frac{4}{6}$$