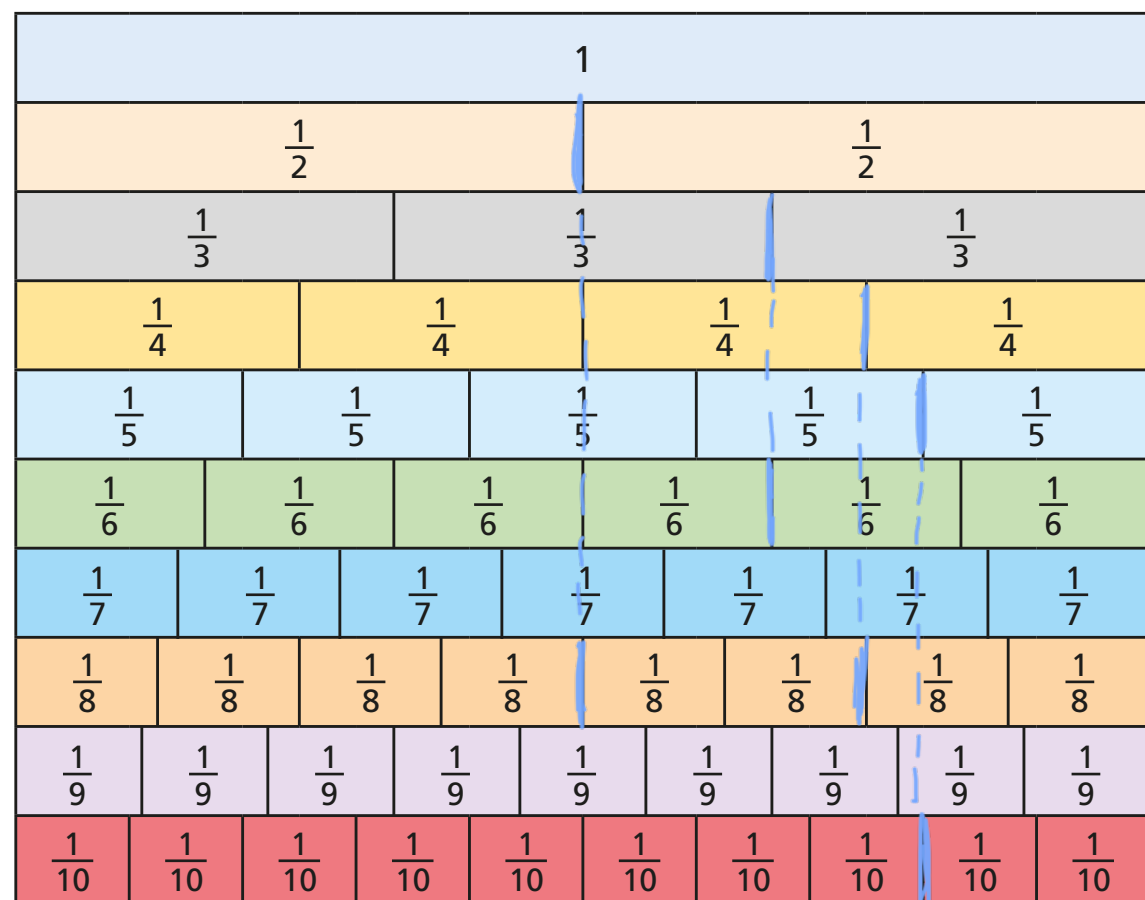


Simplify fractions

1



Use the fraction wall to write each fraction in its simplest form.

a) $\frac{4}{6} = \frac{2}{3}$

c) $\frac{6}{8} = \frac{3}{4}$

b) $\frac{8}{10} = \frac{4}{5}$

d) $\frac{4}{8} = \frac{1}{2}$

2

a) Use a fraction wall to explain why $\frac{7}{10}$ does not simplify.

It is already in its simplest form.

b) Find three more fractions on the fraction wall that cannot be simplified.

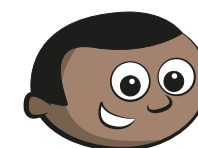
e.g. $\frac{2}{3}$

$\frac{3}{7}$

$\frac{9}{10}$

3

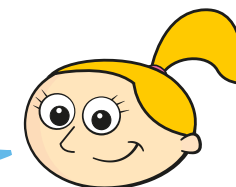
Mo, Eva and Ron are trying to simplify $\frac{5}{20}$



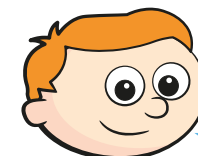
I can't simplify this because one number is odd and the other is even.

Mo

I can't simplify this because only one number can be halved.



Eva



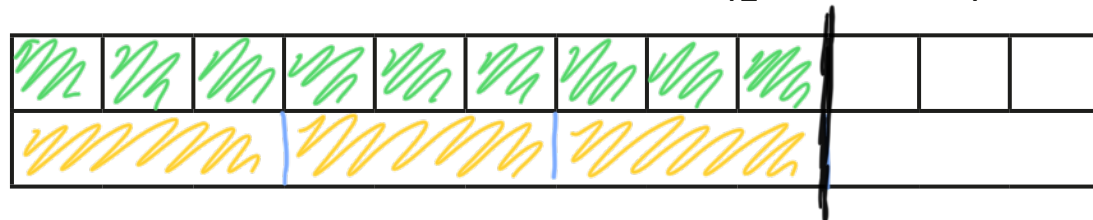
I can simplify any fraction.

Ron

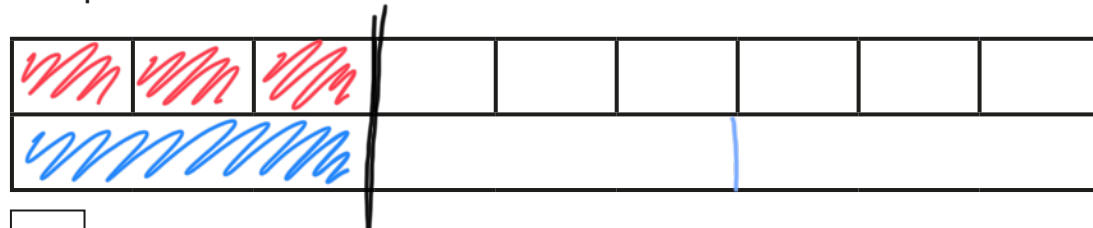
Do you fully agree, partly agree or completely disagree with each person?

Talk to a partner.

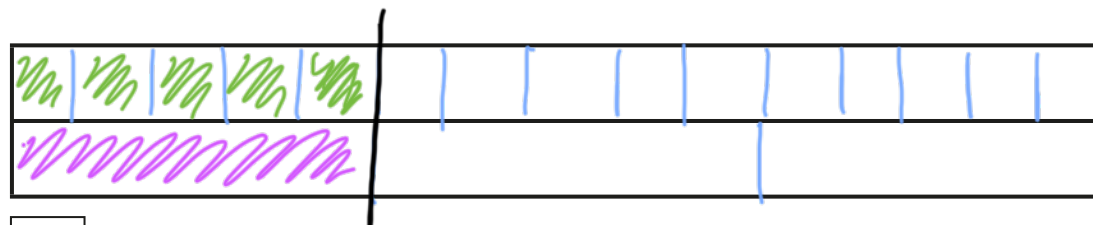
- 4 a) Draw lines on the bar model to show that $\frac{9}{12}$ is equal to $\frac{3}{4}$



- b) Complete each bar model and calculation.



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



$$\frac{1}{3} = \frac{5}{15}$$

- 5 Simplify the fractions.

a) $\frac{4}{12} = \frac{1}{3}$ b) $\frac{8}{12} = \frac{2}{3}$ c) $\frac{40}{120} = \frac{1}{3}$ d) $\frac{12}{4} = 3$

$\frac{4}{16} = \frac{1}{4}$ $\frac{8}{16} = \frac{1}{2}$ $\frac{40}{160} = \frac{1}{4}$ $\frac{120}{4} = 30$

$\frac{4}{20} = \frac{1}{5}$ $\frac{8}{20} = \frac{2}{5}$ $\frac{40}{200} = \frac{1}{5}$ $\frac{12}{400} = \frac{3}{100}$

Describe and explain any patterns that you noticed.

Various answers



- 6 Write 3 fractions that simplify to $\frac{3}{5}$

e.g. $\frac{6}{10}$

$\frac{9}{15}$

$\frac{12}{20}$

- 7 Teddy and Dora are both simplifying $\frac{30}{42}$

Teddy

$$\frac{30}{42} = \frac{15}{21} = \frac{5}{7}$$

Dora

$$\frac{30}{42} = \frac{5}{7}$$




- a) How do you think Dora was able to simplify the fraction in one step?
- b) Simplify these fractions in one step.

$$\frac{24}{30} = \frac{4}{5}$$

$$\frac{16}{20} = \frac{4}{5}$$

$$\frac{56}{64} = \frac{7}{8}$$

$$\frac{99}{121} = \frac{9}{11}$$

- 8   is a prime number.  is a multiple of 10

The fraction can be simplified.

What could each number be? Explain your reasoning.

E.g. 2 is prime, 20 is a multiple of 10
and $\frac{2}{20} = \frac{1}{10}$

so star could be 2 and heart could be 20