Simplify fractions

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$\frac{1}{2}$	$\frac{1}{2}$

| $\frac{1}{3}$ | $\frac{1}{3}$ | $\frac{1}{3}$ |

| $\frac{1}{4}$ | $\frac{1}{4}$ | $\frac{1}{4}$ | $\frac{1}{4}$ |

| $\frac{1}{5}$ | $\frac{1}{5}$ | $\frac{1}{5}$ | $\frac{1}{5}$ | $\frac{1}{5}$ |

| $\frac{1}{6}$ | $\frac{1}{6}$ | $\frac{1}{6}$ | $\frac{1}{6}$ | $\frac{1}{6}$ | $\frac{1}{6}$ |

| $\frac{1}{7}$ | $\frac{1}{7}$ | $\frac{1}{7}$ | $\frac{1}{7}$ | $\frac{1}{7}$ | $\frac{1}{7}$ | $\frac{1}{7}$ |

| $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ |

| $\frac{1}{9}$ | $\frac{1}{9}$ | $\frac{1}{9}$ | $\frac{1}{9}$ | $\frac{1}{9}$ | $\frac{1}{9}$ | $\frac{1}{9}$ | $\frac{1}{9}$ | $\frac{1}{9}$ |

| $\frac{1}{10}$ | $\frac{1}{10}$ | $\frac{1}{10}$ | $\frac{1}{10}$ | $\frac{1}{10}$ | $\frac{1}{10}$ | $\frac{1}{10}$ | $\frac{1}{10}$ | $\frac{1}{10}$ | $\frac{1}{10}$ |

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

a) $\frac{4}{6} = \boxed{}$

c) $\frac{6}{8} = \boxed{}$

b) $\frac{8}{10} = \boxed{}$

d) $\frac{4}{8} = \boxed{}$

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

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

$\boxed{}$ $\boxed{}$ $\boxed{}$

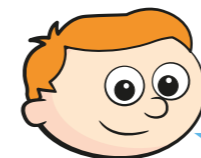**3** Mo, Eva and Ron are trying to simplify $\frac{5}{20}$

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

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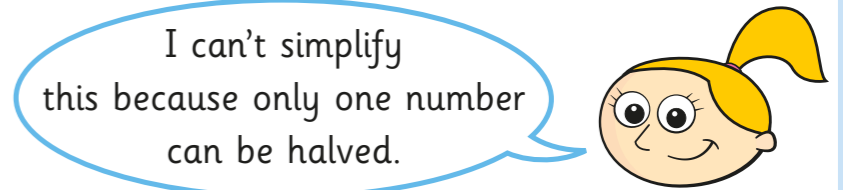
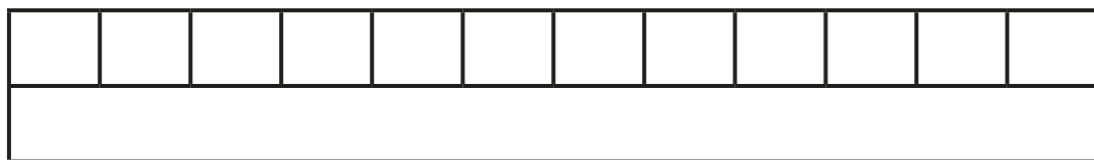> I can't simplify this because only one number can be halved.

Eva

> I can simplify any fraction.

Ron

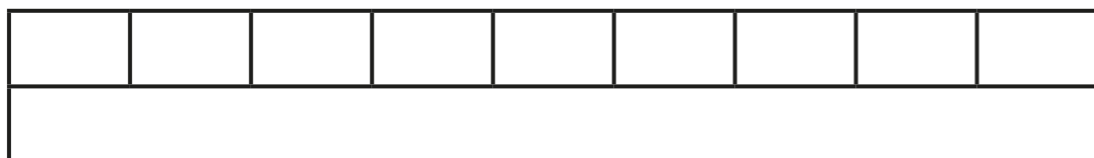Do you fully agree, partly agree or completely disagree with each person?
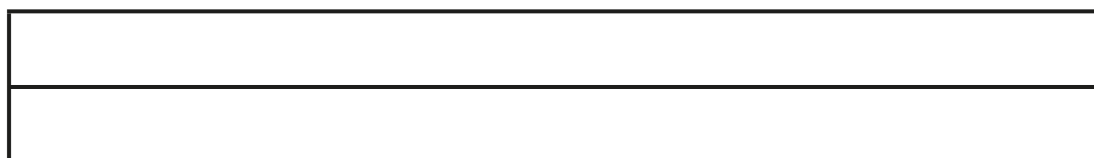
Talk to a partner.

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.

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

$$\boxed{} = \frac{5}{15}$$

5 Simplify the fractions.

a) $\frac{4}{12} = \boxed{}$ **b)** $\frac{8}{12} = \boxed{}$ **c)** $\frac{40}{120} = \boxed{}$ **d)** $\frac{12}{4} = \boxed{}$

$\frac{4}{16} = \boxed{}$ $\frac{8}{16} = \boxed{}$ $\frac{40}{160} = \boxed{}$ $\frac{120}{4} = \boxed{}$

$\frac{4}{20} = \boxed{}$ $\frac{8}{20} = \boxed{}$ $\frac{40}{200} = \boxed{}$ $\frac{12}{400} = \boxed{}$

Describe and explain any patterns that you noticed.

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

$\boxed{}$ $\boxed{}$ $\boxed{}$

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.

$\frac{24}{30} = \boxed{}$ $\frac{16}{20} = \boxed{}$

$\frac{56}{64} = \boxed{}$ $\frac{99}{121} = \boxed{}$

8 $\dfrac{\bigstar}{\heartsuit}$ $\bigstar$ is a prime number. $\heartsuit$ is a multiple of 10

The fraction can be simplified.

What could each number be? Explain your reasoning.

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