Week 4: Fractions

What does it mean?

When we simplify a fraction, we make it as simple as possible.

We do this by dividing both the **denominator** and **numerator** by the **highest** number that **both** will divide into exactly.

For example:

$$\begin{array}{ccc} \frac{4}{8} & \rightarrow & \frac{2}{4} & \rightarrow & \frac{1}{2} \\ & \vdots & & \vdots & 2 \end{array}$$

$$\begin{array}{c} \frac{12}{27} \rightarrow \frac{4}{9} \\ \div 3 \end{array}$$



Need more guidance? click here for video

Task



Simplify the following fractions. The first one has been done for you.

a)
$$\frac{20}{50} \rightarrow \frac{2}{5}$$

i)
$$\frac{21}{70}$$
 \rightarrow

b)
$$\frac{15}{40}$$
 \rightarrow

$$j)\frac{45}{80}$$
 \rightarrow

c)
$$\frac{63}{81}$$
 \rightarrow

$$k)\frac{2}{64} \rightarrow$$

d)
$$\frac{160}{200}$$
 \rightarrow

$$1) \ \frac{14}{50} \ \rightarrow$$

e)
$$\frac{35}{49}$$
 \rightarrow

m)
$$\frac{18}{81}$$
 \rightarrow

f)
$$\frac{60}{100}$$
 \to

n)
$$\frac{23}{100}$$
 \rightarrow

g)
$$\frac{16}{18}$$
 \rightarrow

o)
$$\frac{33}{88}$$
 \to

h)
$$\frac{2}{8}$$
 \rightarrow

p)
$$\frac{3}{60}$$
 \to

Problem Solving

Question 1: Which fractions below are equivalent to $\frac{2}{3}$?

$$\frac{4}{6}$$
 $\frac{6}{8}$ $\frac{8}{12}$ $\frac{9}{12}$ $\frac{10}{15}$

Question 2: James says that $\frac{1}{3}$ of the grid is shaded

Cara says $\frac{4}{12}$ of the grid is shaded.

Explain how they are both correct.



Question 3: Given that $5 \times 13 = 65$ and $7 \times 13 = 91$ simplify fully $\frac{65}{91}$

Question 4: Freddy has 40 cupcakes.

20 of the cupcakes are chocolate.10 of the cupcakes are lemon.8 of the cupcakes are strawberry.The rest of the cupcakes of vanilla.

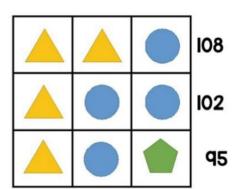
(a) What fraction of the cupcakes are chocolate? Give the fraction in its simplest form.



- (b) What fraction of the cupcakes are lemon? Give the fraction in its simplest form.
- (c) What fraction of the cupcakes are strawberry? Give the fraction in its simplest form.

Weekly Challenge

Here is a 3×3 grid with some shapes in.



Each shape represents a number.

The sum of each row is shown at the right of the table.

Find the value of each of the shapes.

Now complete the online quiz: click here for quiz