

# Fraction and Decimal Equivalence

Let's recap on some things we know about fractions first ...  
What have all these got in common?

$$\frac{4}{4} \quad \frac{2}{2} \quad \frac{6}{6} \quad \frac{13}{13} \quad \frac{1256}{1256} = 1$$

If the **Numerator** and the **Denominator**  
are the same, then the fraction equals 1

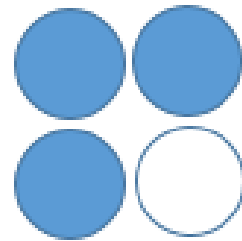
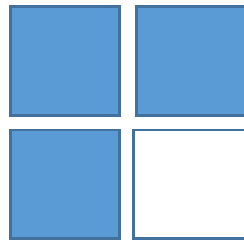
# RECAP

- Equivalence means 2 or more things that are the same.
- A fraction is a word used to describe parts of a whole.
- A decimal also describes a part of a whole, but we write it using numbers and a decimal point, for example 0.5

If the Denominator is 1 then the fraction is a whole number,  
equal to the Numerator.

$$\frac{8}{1} = 8$$

Spot the odd one out ...



$$\frac{3}{8}$$



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

$$\frac{4}{8}$$

$$\frac{2}{3}$$

$$\frac{3}{6}$$

$$\frac{6}{12}$$

$$\frac{5}{10}$$

How do you know?  
Explain it!

In Year 5 you will learn that.....

So, how do we work out a decimal?

It's simple! We get any fraction and  
divide the Numerator by the Denominator

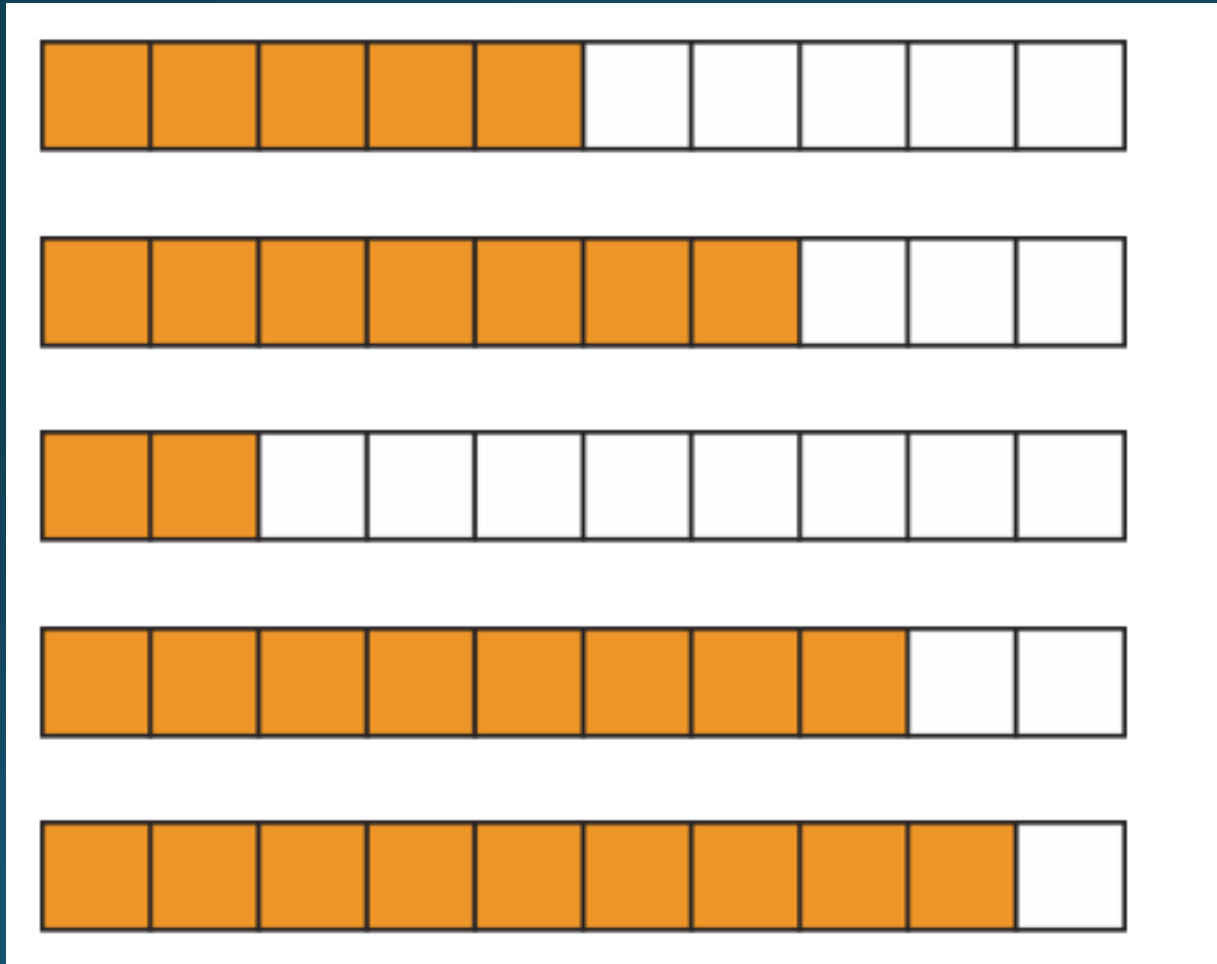
Let's work out an example ...

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

← Divide the Numerator, 1  
← by the Denominator, 2

so,  $1 \div 2 = 0.5$

Can you work out these decimals?



# Self assessment using different colour!



Can you write these fractions as decimals in your book?

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

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

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

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

# Self assessment using different colour!

$$\frac{1}{4} = 0.25$$

$$\frac{1}{5} = 0.2$$

$$\frac{1}{10} = 0.1$$

$$\frac{1}{2} = 0.5$$



Find the common factors of the following pairs of numbers: (Make a list)

<https://www.youtube.com/watch?v=U-1KjJAA6M>

6

24

8

36

12

18

Let's check the common factors:

**6**

**1, 2, 3, 6**

**24**

**1, 2, 3, 4, 6, 8, 12, 24**

**8**

**1, 2, 4, 8**

**36**

**1, 2, 3, 4, 6, 9, 12, 18, 36**

**12**

**1, 2, 3, 4, 6, 12**

**18**

**1, 2, 3, 6, 9, 18**

Simplify these fractions using the highest common factor. Copy them in your book.

$$\frac{27 (\div 9)}{36 (\div 9)} = \frac{\square}{\square}$$

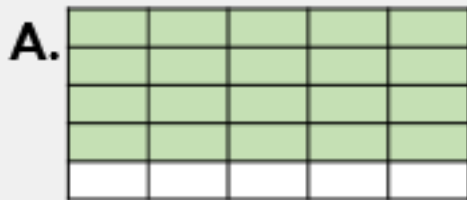
$$\frac{16 (\div 8)}{40 (\div 8)} = \frac{\square}{\square}$$

# Self assessment using different colour!

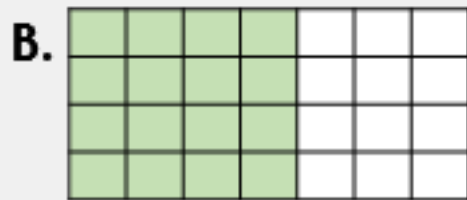
$$\frac{27 (\div 9)}{36 (\div 9)} = \frac{3}{4}$$

$$\frac{16 (\div 8)}{40 (\div 8)} = \frac{2}{5}$$

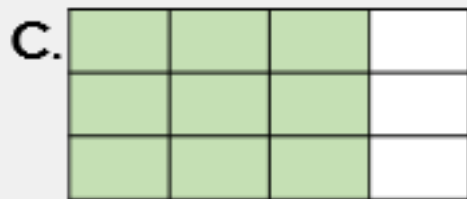
Match each fraction to its simplified version.  
Copy only the fraction and letter (e.g. 1/2=D)



$$\frac{4}{7}$$

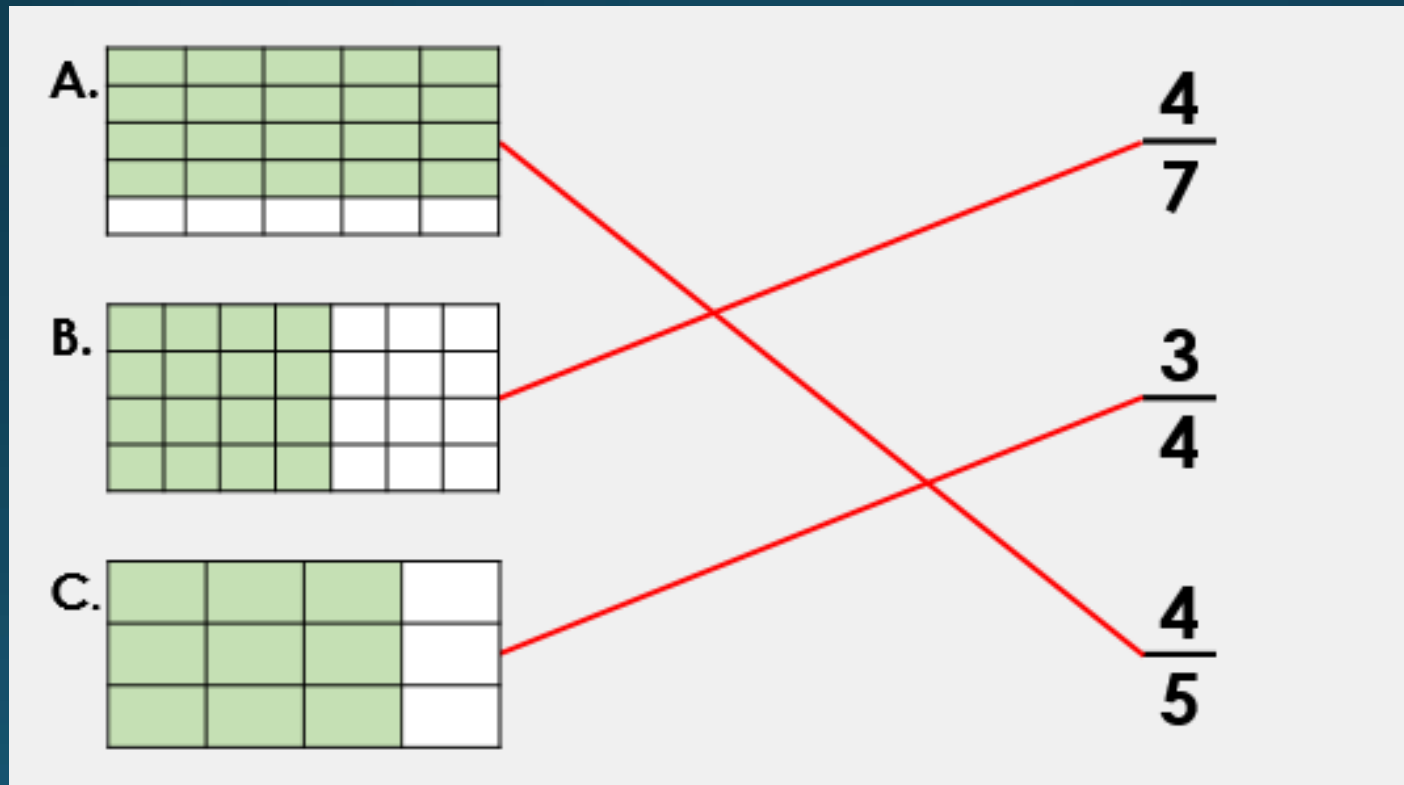


$$\frac{3}{4}$$



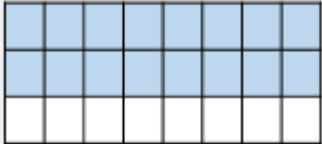
$$\frac{4}{5}$$

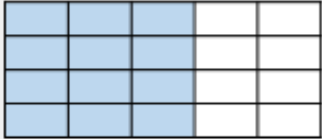
# Self assessment using different colour!



## True or false?

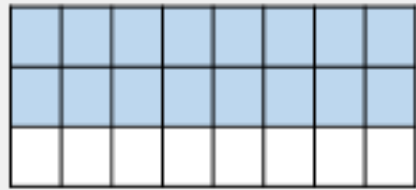
The following fractions are reduced to their simplest form. Write your answer in the book.

A)  =  $\frac{8}{12}$

B)  =  $\frac{3}{5}$

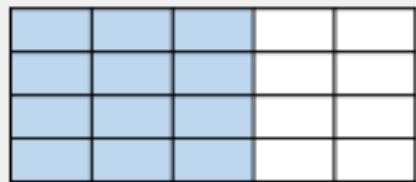
e.g. C is True  
D is False,  
because it is  $\frac{4}{6}$

# Self assessment using different colour!



$$= \frac{8}{12}$$

$$\text{False} = \frac{2}{3}$$



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

True



Main Activity in books. Use the highest common factors below to help complete these simplified fractions.

**9** **3** **7** **5**

$$\frac{21}{\square} = \frac{\square}{4}$$

$$\frac{\square}{35} = \frac{3}{\square}$$

$$\frac{\square}{36} = \frac{3}{\square}$$

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

# Self assessment using different colour!

9 3 7 5

$$\frac{21}{28} = \frac{3}{4}$$

Highest common factor 7

$$\frac{15}{35} = \frac{3}{7}$$

Highest common factor 5

$$\frac{27}{36} = \frac{3}{4}$$

Highest common factor 9

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

Highest common factor 3

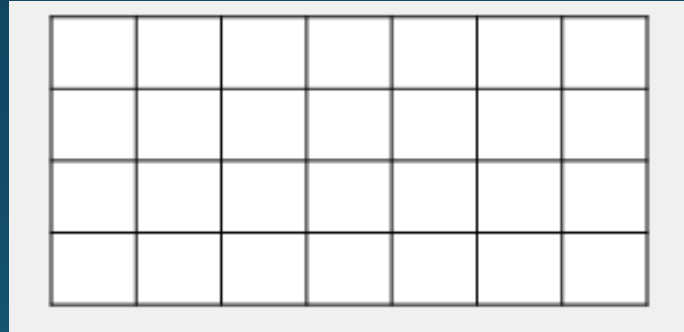
# Challenge 1:

## Copy it in your book.

There are 28 red and yellow tulips in a basket. 24 of them are yellow.

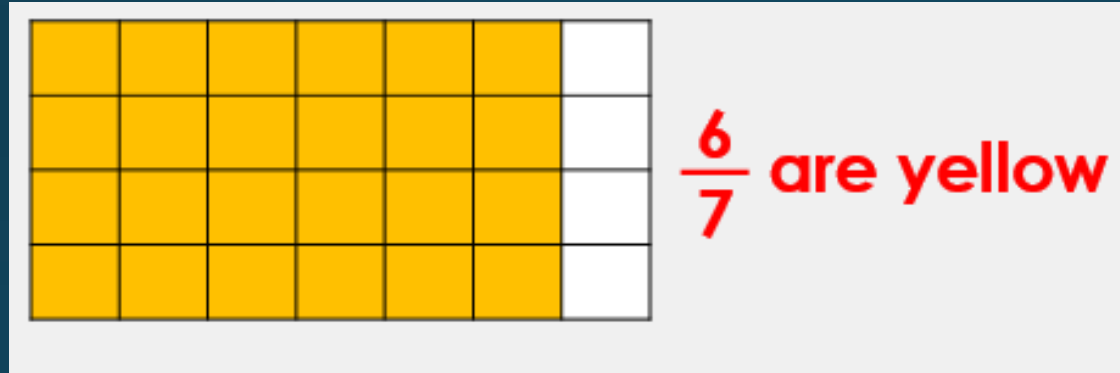
Represent this as a simplified fraction. |

Use the grid below to help you work out the fraction in its simplest form.



What fraction of the tulips are red? Give the answer in its simplest form.

# Self assessment using different colour!

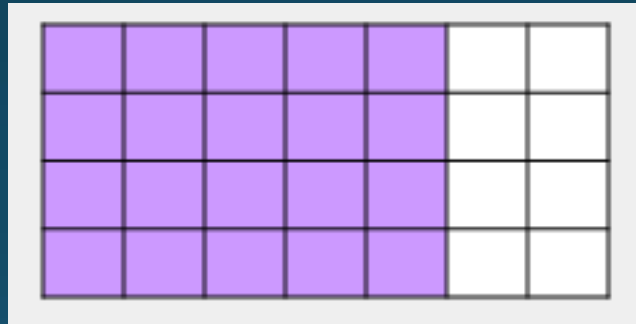


$\frac{1}{7}$  are red

# Challenge 2:

## Copy it in your book.

I think, this fraction can be simplified to  $\frac{10}{28}$  because 2 is the highest common factor.



Am I correct? Prove it.

# Self assessment using different colour!

You are incorrect because 4 is the highest common factor.

$$\frac{20}{28} \text{ is simplified to } \frac{5}{7}.$$