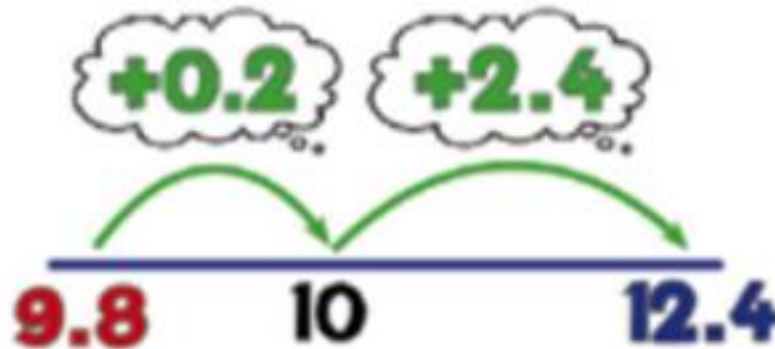


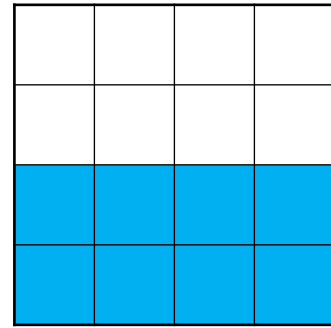
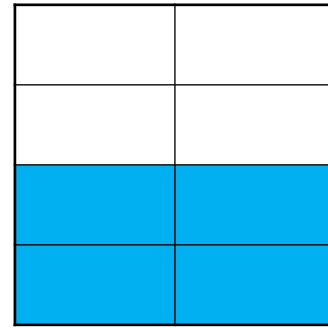
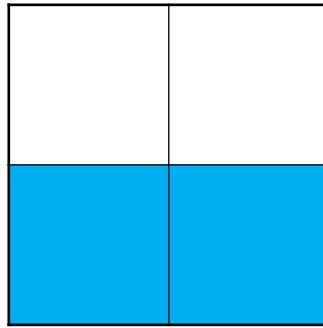
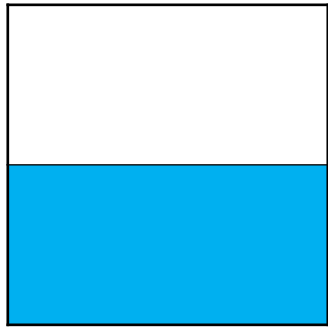
# MS4b: Counting On

$$12.4 - 9.8 = 2.6$$



Take a look at the mental maths strategy shown above. Think about it carefully before writing down in words what the strategy is.

# Equivalent and Simplified Fractions



How many equal sections is each square cut into?

2

4

8

16

How many of the sections are blue?

1

2

4

8

What fraction of each square is blue?

$\frac{1}{2}$

$\frac{2}{4}$

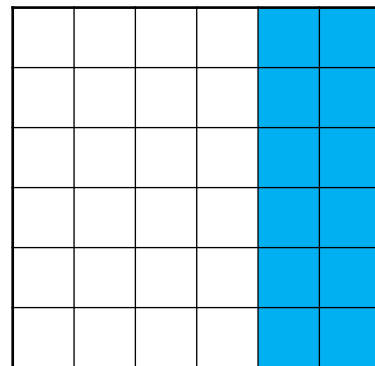
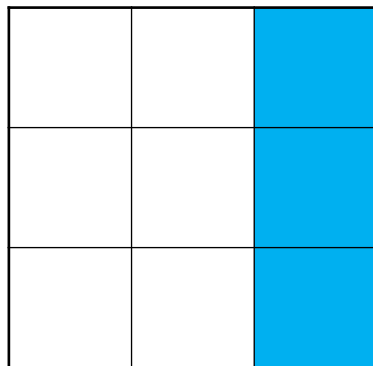
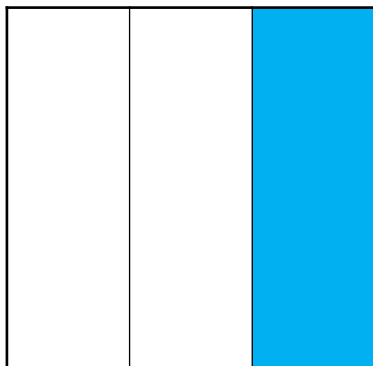
$\frac{4}{8}$

$\frac{8}{16}$



Are these fractions equal?

How do you get from one fraction to the next?



How many equal sections is each square cut into?

3

9

36

How many of the sections are blue?

1

3

12

What fraction of each square is blue?

$\frac{1}{3}$

$\frac{3}{9}$

$\frac{12}{36}$



Are these fractions equal?

How do you get from one fraction to the next?

So to find equivalent fractions you multiply the numerator (the top number) and the denominator (the bottom number) by the same number.

E.g. Find 3 equivalent fractions to  $\frac{2}{5}$  :

$$\frac{2}{5} = \frac{4}{10}$$



$$\frac{2}{5} = \frac{12}{30}$$



$$\frac{2}{5} = \frac{48}{120}$$



Remember you  
can multiply by  
any number!!!

### Practice Questions:

Find 3 equivalent fractions for each question

a)  $\frac{1}{4}$

e)  $\frac{3}{5}$

i)  $\frac{8}{12}$

b)  $\frac{6}{9}$

f)  $\frac{7}{10}$

j)  $\frac{1}{8}$

c)  $\frac{3}{8}$

g)  $\frac{4}{7}$

k)  $\frac{4}{7}$

d)  $\frac{9}{10}$

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

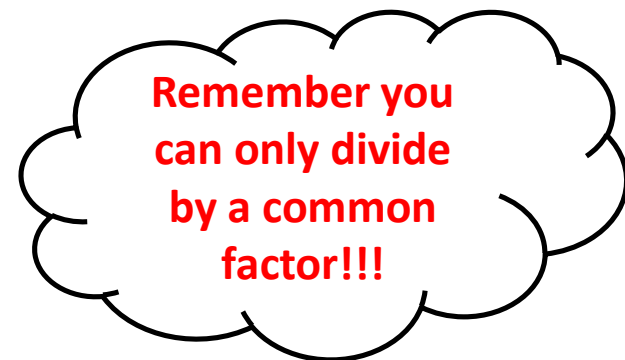
l)  $\frac{9}{11}$

To simplify fractions, instead of multiplying the numerator and the denominator by the same number you divide it by the same number. When you can't divide it any further you have found the fraction in it's simplest form!

E.g. Simplify the fraction  $\frac{12}{30}$ :

$$\frac{12}{30} = \frac{4}{10} = \frac{2}{5}$$

$\div 3$        $\div 2$



### Practice Questions:

Simplify the following fractions

a)  $\frac{4}{8}$

e)  $\frac{15}{35}$

i)  $\frac{44}{121}$

b)  $\frac{6}{9}$

f)  $\frac{21}{49}$

j)  $\frac{20}{28}$

c)  $\frac{12}{16}$

g)  $\frac{16}{36}$

k)  $\frac{42}{72}$

d)  $\frac{24}{36}$

h)  $\frac{63}{77}$

l)  $\frac{72}{144}$