

Mathematics

# **The rule of four**

## **Lesson 4 of 8**

Miss Kidd-Rossiter



# Try this

	$\times 2$	$\times 8$
$3 \times$	6	24
$6 \times$		

	$\times 3$	$\times 9$
$2 \times$	6	
$8 \times$		

	$\times 5$	$\times 10$
$3 \times$	15	
$9 \times$		

	20	100
	30	

	60	12
		4

	24	

Complete these 'times tables' grids.

What multiplicative relationships can you see between rows?

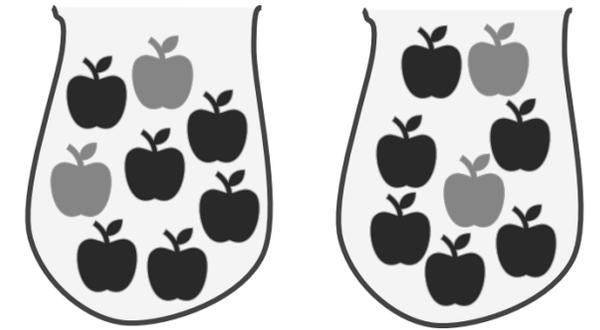
What multiplicative relationships can you see between columns?



# Connect

A greengrocer makes bags of red and green apples.

There are the same amount of red apples in each bag, and the same amount of green apples in each bag.



She then puts some bags into a box and gives them to schools.

	Number in bag	Number in box
Green	2	60
Red	6	

	Number in bag	Number in box
Green	3	27
Red	5	

	Number in bag	Number in box
Green		33
Red	6	



# Independent task

1. To make large volumes of different shades of purple paint, I mix different amounts of red paint and blue paint.

Complete these tables:

	Mix	Volume
Red	5	15 litres
Blue	1	

	Mix	Volume
Red	3	
Blue	4	20 litres

	Mix	Volume
Red	4	3.2 litres
Blue	12	

	Mix	Volume
Red	8	10 litres
Blue	28	

Which did you find the easiest to work out? Explain your choice.



# Independent task

2. Two bottles of drink taste the same.
- a. Fill in the grid.
  - b. What is the ratio of squash to water?
  - c. How much bigger is bottle 2?

	Squash	Water
Bottle 1	20 <i>cl</i>	
Bottle 2	60 <i>cl</i>	45 <i>cl</i>



# Independent task

3. Below is a ratio table.

Gemma says that the missing number is 35.

Ed says that the missing number is 19.

- a. Who do you agree with, why?
- b. What mistake has been made by the person who is wrong?

	Group	Bag
Pink	3	15
Grey	7	?



# Explore

To make delicious muffins, the ratio of **flour : sugar : milk** should be **5 : 3 : 2**.

Which of these mixes will make delicious muffins?

I want to make as many delicious muffins as I can. I have 2kg of flour and 1kg of sugar.

How much milk will I need?

Flour	Sugar	Milk
400g	240g	160ml
300g	500g	200ml
1.6kg	960g	640ml
1.25kg	500g less sugar than flour	½ litre
Twice as much as sugar	Some	The correct amount

