

Mathematics

In the same ratio

Lesson 2 of 8

Miss Kidd-Rossiter

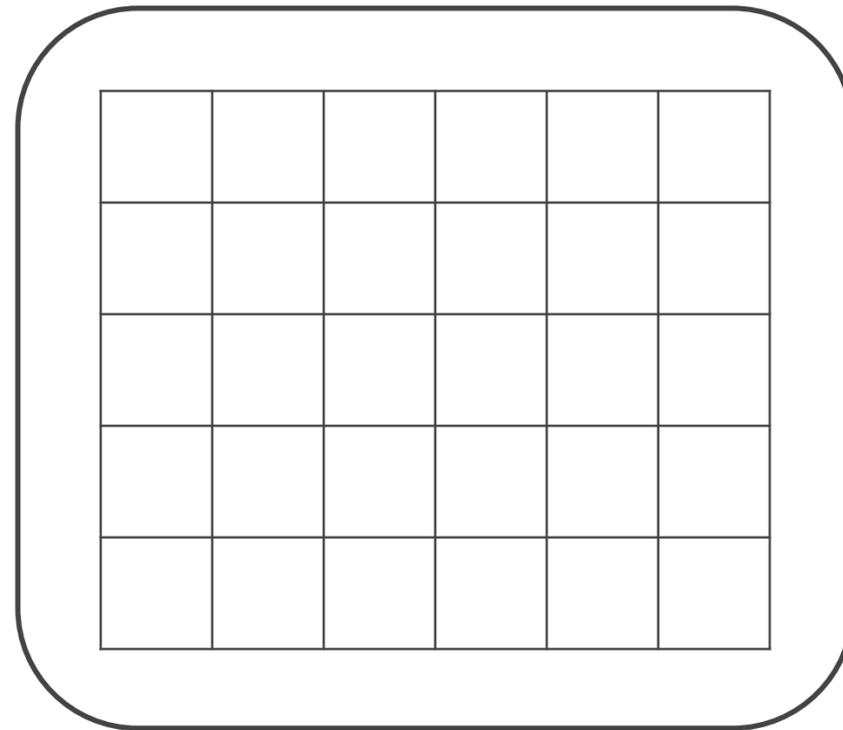


Try this

Here are some students' colouring patterns for the grid in the centre.

Cala

I'm going to use 2 red tiles and 4 blue tiles in each row



I'm going to use 10 red tiles and the rest will be blue

Yasmin

Antoni

I'm going to use red tiles and blue tiles in the ratio 1 : 4

I'm going to use 20 more blue tiles than red tiles altogether

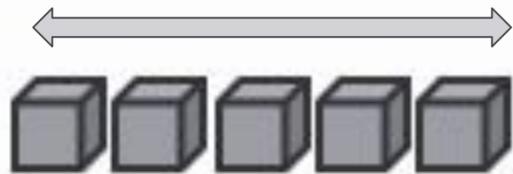
Xavier

How many tiles of each colour does each student use?

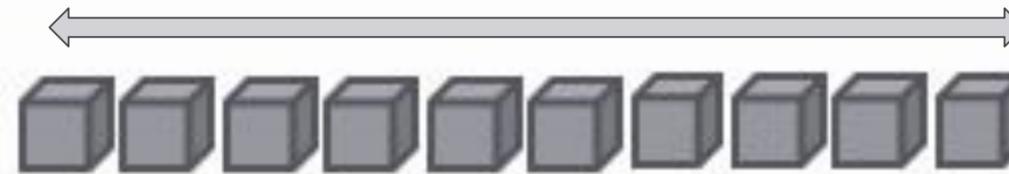


Connect

Red cubes:



Blue cubes:



The ratio of red cubes to blue cubes is ___ : ___



If 2 cubes of each colour cubes are taken away, the ratio of red cubes to blue is ___ : ___

** For this diagram, the first three cubes are red and the last 8 are blue*



If 2 red and 4 blue cubes are taken away, the ratio of red cubes to blue cubes is ___ : ___

** For this diagram, the first three cubes are red and the last 6 are blue*



Independent task

1. This paint is mixed to make orange.

Which of these will make the same shade of orange?

- a. 2 litres red, 3 litres yellow.
- b. 5 litres red, 8 litres orange.
- c. 6 litres red, 15 litres yellow.
- d. 20 cl red, 50 cl yellow.



Independent task

2. I mix 12 litres of yellow paint and 6 litres of blue paint to make green.

I need more of the **same** colour.

I have 8 litres more yellow.

How much more blue paint should I use?



Independent task

3. Pink paint is made with red and white in the ratio 4 : 3. Copy and complete the table so that each line makes the same colour of pink.

Red	White	Total
8 litres		
	15 litres	
10 litres		
		28 litres



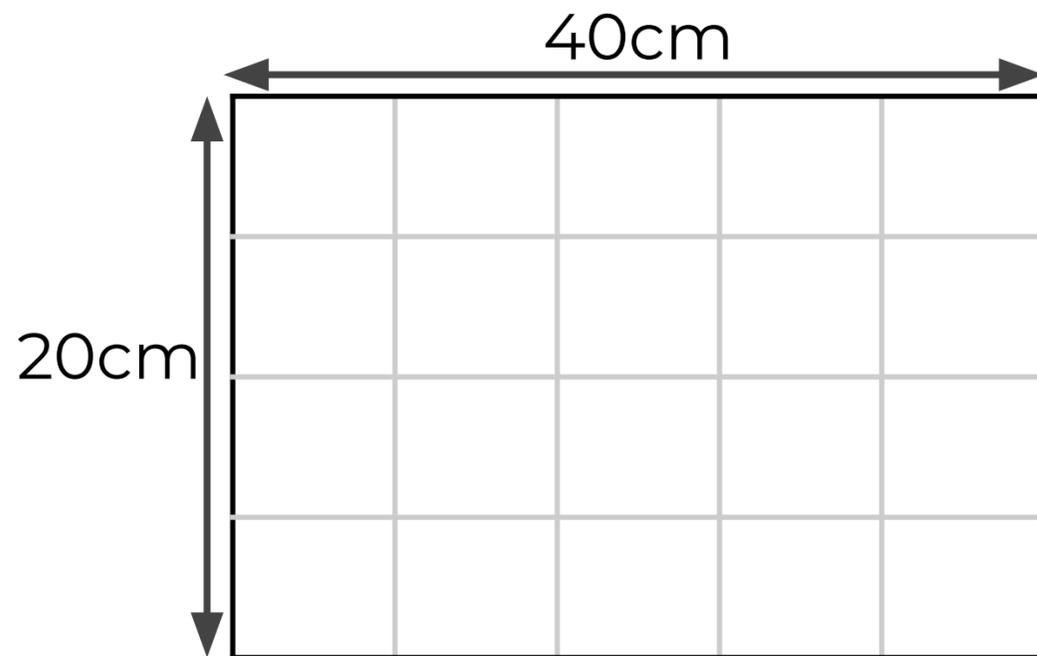
Independent task

4. Some students are designing a pattern for a mural.

First, they make part of the pattern.

In this 'block' they use **green tiles : orange tiles** in the ratio **13 : 7**.

This 'block' is repeated lots of times to make the whole pattern.



How many green tiles will be needed to repeat this pattern if the mural:

- a. measures 80cm by 40cm?
- b. measures 4m by 6m?
- c. has an area of 4000cm^2 ?



Explore

Beth mixes a pot red paint and a pot of yellow paint to make orange paint. She then mixes another pot of red paint and a pot of yellow paint and makes the same shade.

What size pots could Beth have picked?

What about if she can use multiple pots?

