

Mathematics

# **Equivalent ratios**

## **Lesson 3 of 8**

Miss Kidd-Rossiter



# Try this

This strip of paper has been folded into four equal parts.

One part has been coloured green.



**Identical** strips are folded into different numbers of equal parts.



How many parts should be coloured green so that each strip looks the same as the first strip, when the strip is folded into:

8 equal parts

20 equal parts

6 equal parts

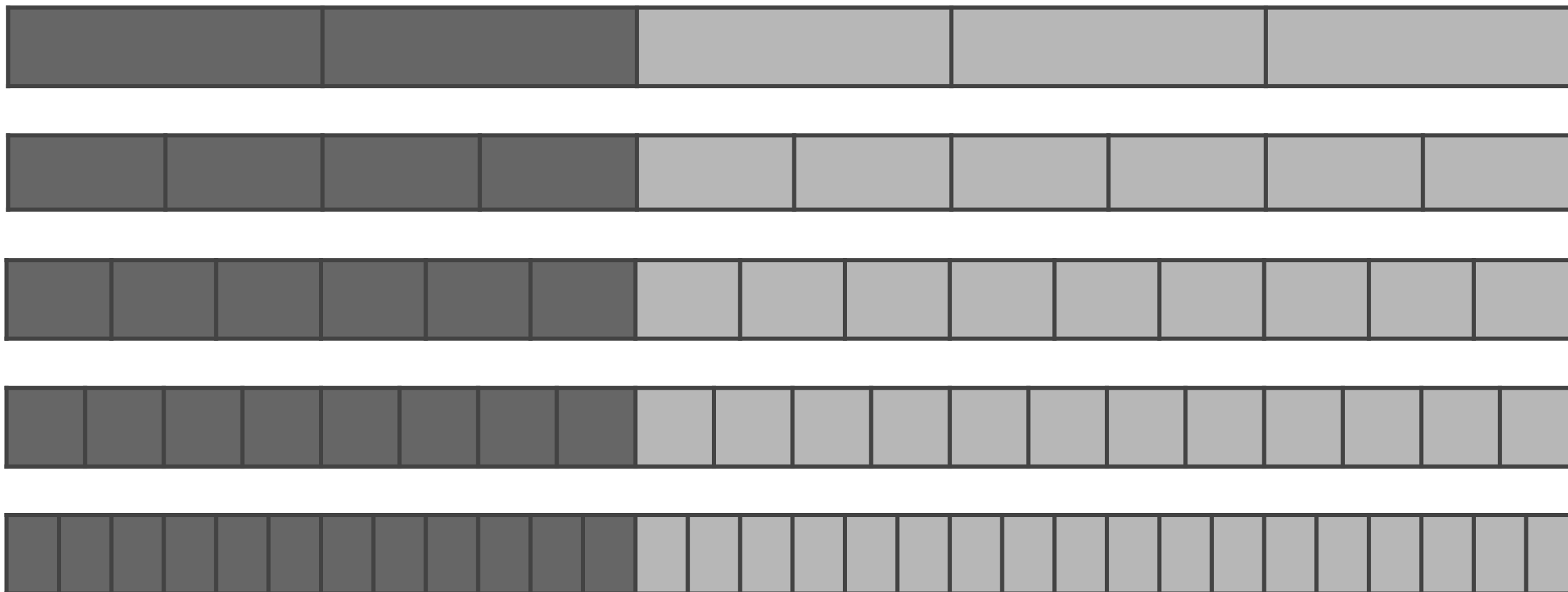
2 equal parts



# Connect

What's the ratio of pink : green in each of these strips?

What do the strips show about these ratios?



Draw some **different** strips representing the same **ratio**.



# Independent task

1. Complete these equivalent ratios:

a.  $2 : 5 = 6 : \underline{\hspace{1cm}}$

b.  $11 : 22 = \underline{\hspace{1cm}} : 6$

c.  $5 : \underline{\hspace{1cm}} = \underline{\hspace{1cm}} : 21 = 60 : 84$

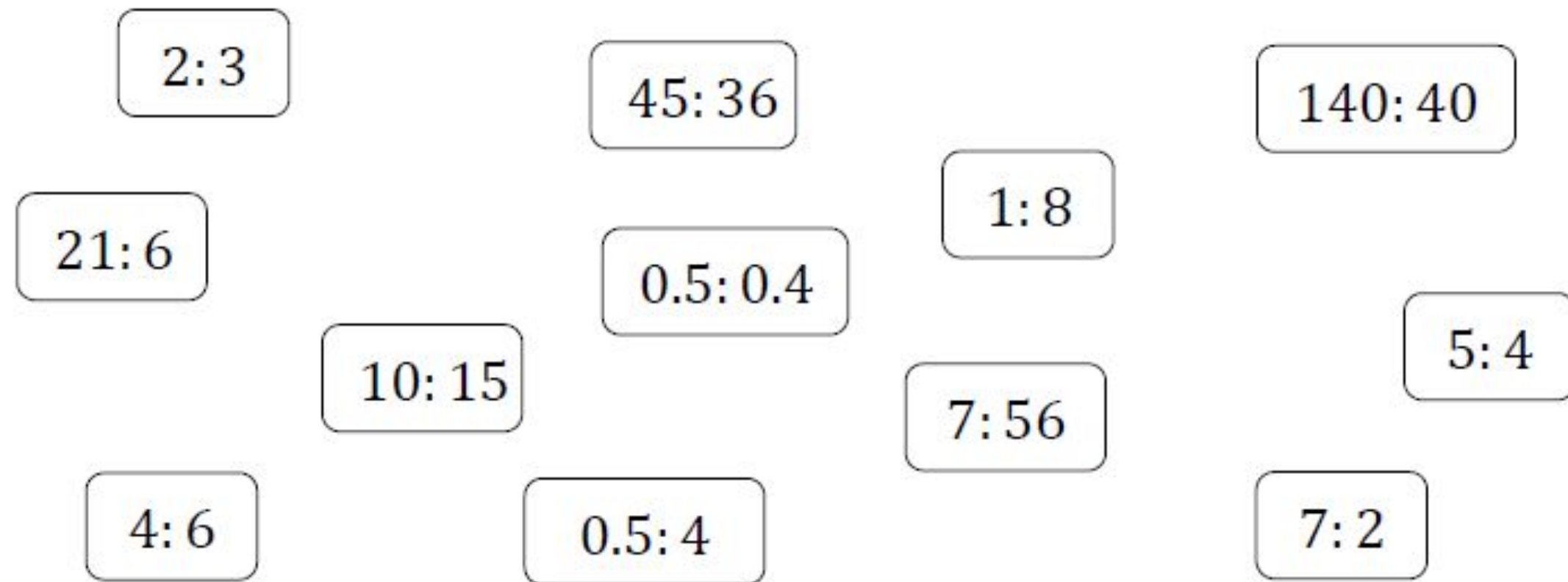
d.  $6 : 4 = 3 : \underline{\hspace{1cm}} = \underline{\hspace{1cm}} : 1$

e.  $6 : 4 = 3 : \underline{\hspace{1cm}} = 1 : \underline{\hspace{1cm}}$



# Independent task

2. Make sets of three equivalent ratios.



# Independent task

3. I have 5 yellow counters and 7 green counters.

- a. What is the ratio yellow : green?
- b. What fraction of the counters are yellow?
- c. What fraction of the counters are green?
- d. What is the unit ratio yellow : green?
- e. What is the unit ratio green : yellow?



# Explore

Zaki has 24 gold counters and 36 silver counters.

He wants to share the counters into piles with the following rules:

- There must be the **same** number of counters in each pile.
- Each pile can only have **one colour** of counter

I can put twelve counters in each pile, so there will be 2 gold piles and 3 silver piles

1. What are some different ways he can do this? Can you find all the different ways of doing this?
2. For each way, write the ratio of the number of gold piles : the number of silver piles?
3. What if Zaki lost 1 silver counter and tried this again?

