

Lesson 2 – Multiplication - Make Equal Groups

NC Objective:

Solve problems involving multiplication and division, using materials, arrays, repeated addition and multiplication and division facts, including problems in context.

Resources needed:

Differentiated Sheets
Teaching Slides
Objects to make equal and unequal groups

Vocabulary:

Addition, multiplication, equal, unequal, represent

Children gain a deeper understanding of equal groups by discussing and making equal groups of their own practically by working on this sheet.
Children should be able to make equal groups to demonstrate their understanding of the word 'equal'.
With the examples provided to the children, it is important that they are exposed to numerals and words, as well as multiple representations.

Key Questions:

- How else could you represent these in equal groups?
- How many ways can you represent this?
- How many have you grouped your items?

★ Working Towards

They choose between 2 images to identify an equal group and have key words highlighted for them and images to help them make equal groups.

★★ Working Within

They choose between 3 images to identify an equal group and use the words 'three 2s' / '5 tens', with an understanding that this relates to equal groups.

★★★ Greater Depth

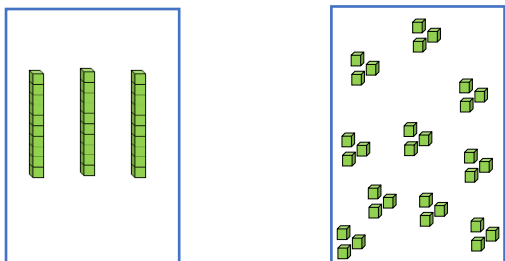
They choose between a variety of images to identify an equal group and use the words 'three 2s' / '5 tens', with an understanding that this relates to equal groups. They have trickier images to use to explain how to make the groups equal.

Reasoning & Problem Solving

Cut out and answer the questions about equal groups.

Which one of these is:

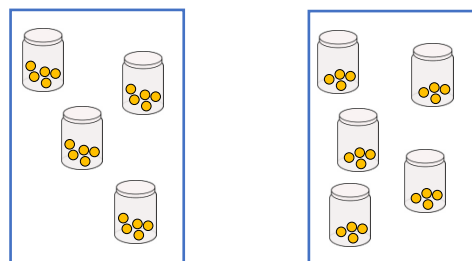
three equal groups with ten in each group?



Explain how you know.

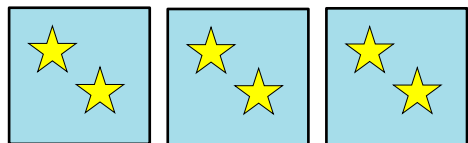
Which one of these is:

five equal groups with four in each group?

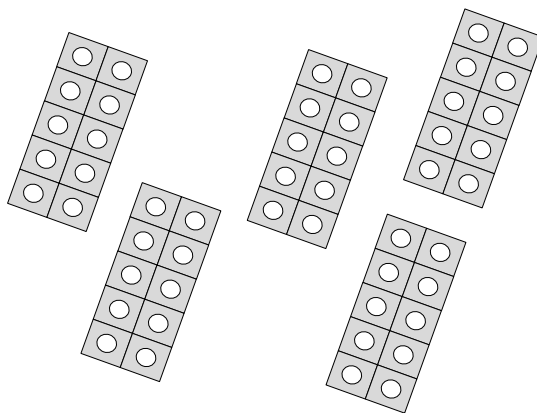


Explain how you know.

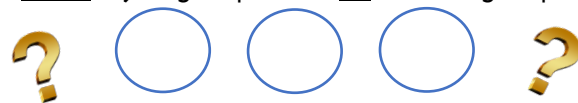
What else do you need to show:
seven equal groups of 2s?



What else do you need to show:
eight equal groups of tens?



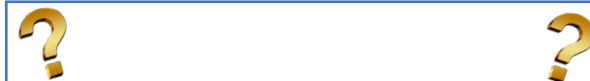
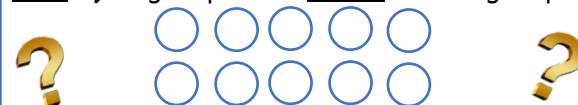
How many ways can you represent,
'three equal groups with six in each group?'



How many ways can you represent,
'two equal groups with seven in each group?'



How many ways can you represent,
'ten equal groups with three in each group?'



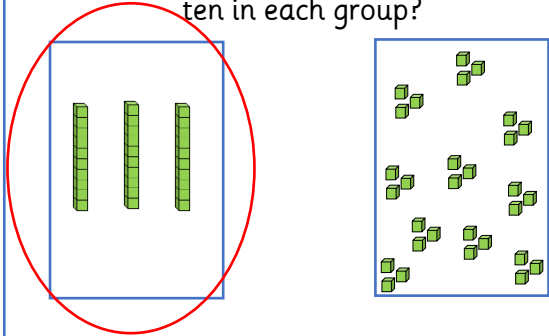
How many ways can you represent,
'five equal groups with two in each group?'



Cut out and answer the questions about equal groups.

Which one of these is:

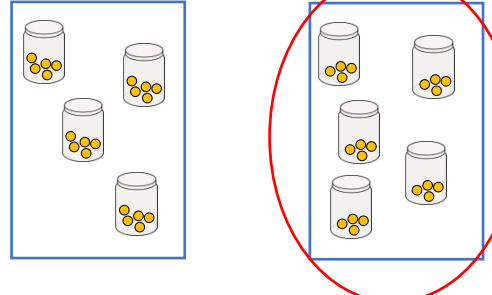
three equal groups with ten in each group?



Explain how you know.

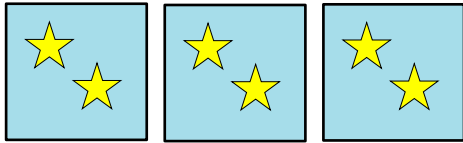
Which one of these is:

five equal groups with four in each group?



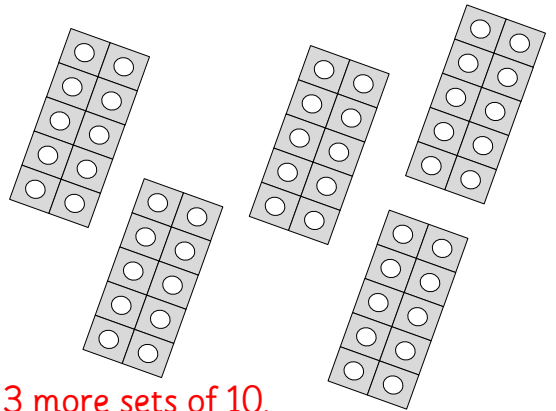
Explain how you know.

What else do you need to show: seven equal groups of 2s?

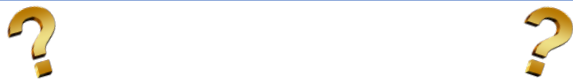


Four more boxes with 2 stars.

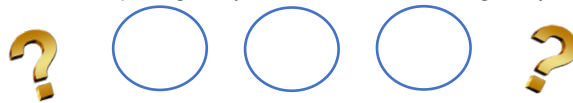
What else do you need to show: eight equal groups of tens?



3 more sets of 10.



How many ways can you represent, 'three equal groups with six in each group?'



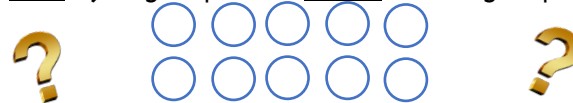
How many ways can you represent, 'two equal groups with seven in each group?'



Multiple answers.



How many ways can you represent, 'ten equal groups with three in each group?'



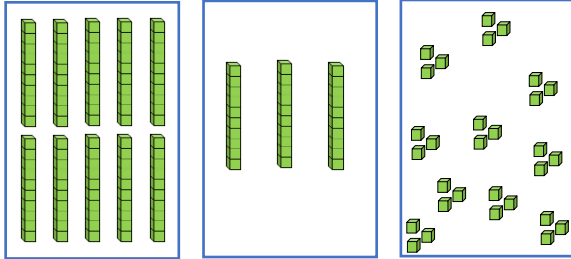
How many ways can you represent, 'five equal groups with two in each group?'



Cut out and answer the questions about equal groups.

Which one of these is:

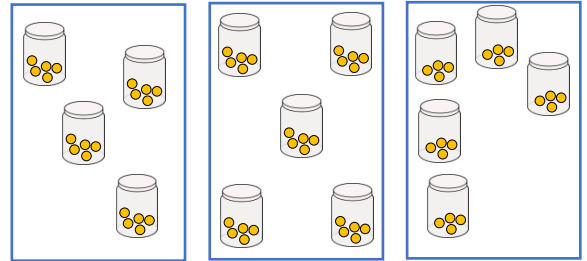
three equal groups with ten in each group?



Explain how you know.

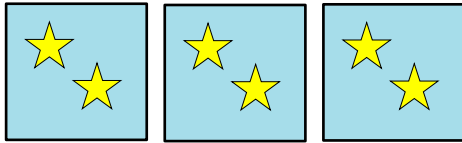
Which one of these is:

five equal groups with four in each group?

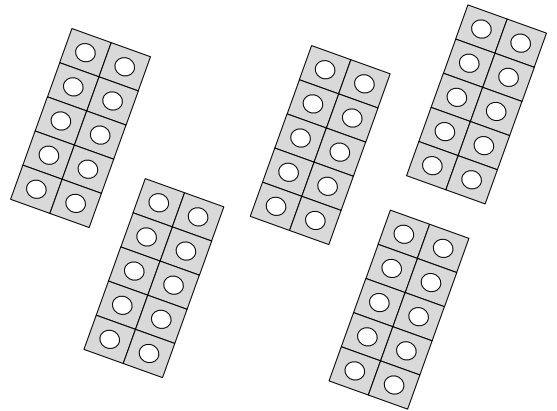


Explain how you know.

What else do you need to show:
seven 2s?



What else do you need to show:
eight tens?



How many ways can you represent,
'three equal groups with six in each group?'

How many ways can you represent,
'two equal groups with seven in each group?'

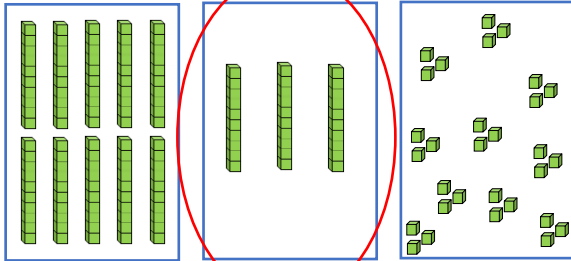
How many ways can you represent,
'ten equal groups with three in each group?'

How many ways can you represent,
'five equal groups with two in each group?'

Cut out and answer the questions about equal groups.

Which one of these is:

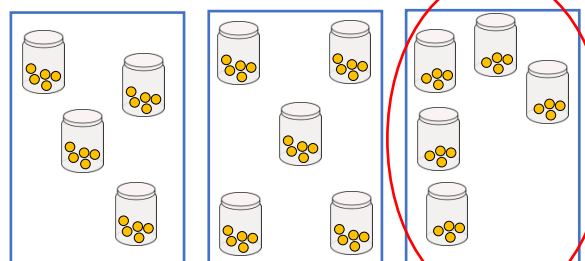
three equal groups with ten in each group?



Explain how you know.

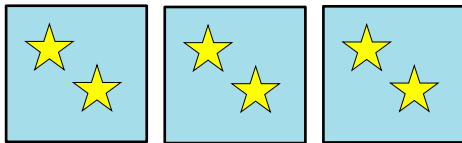
Which one of these is:

five equal groups with four in each group?



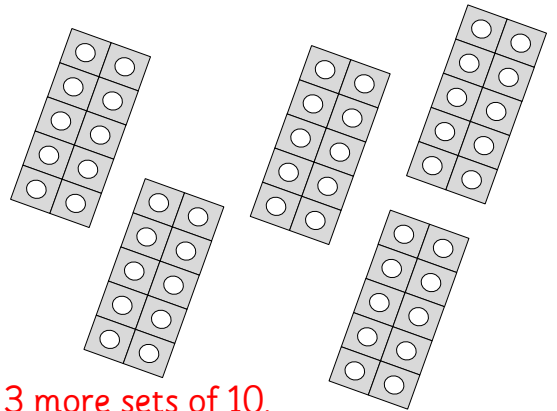
Explain how you know.

What else do you need to show:
seven 2s?



Four more boxes with 2 stars.

What else do you need to show:
eight tens?



3 more sets of 10.



How many ways can you represent,
'three equal groups with six in each group?'



How many ways can you represent,
'two equal groups with seven in each group?'



Multiple answers.



How many ways can you represent,
'ten equal groups with three in each group?'



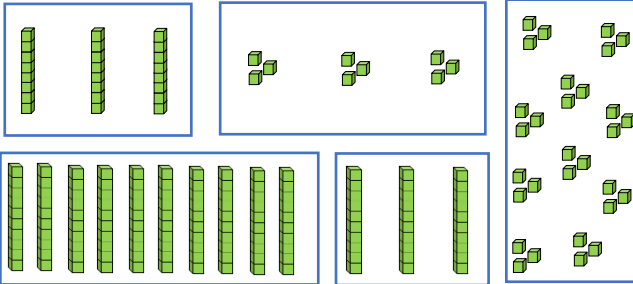
How many ways can you represent,
'five equal groups with two in each group?'



Cut out and answer the questions about equal groups.

Which one of these is:

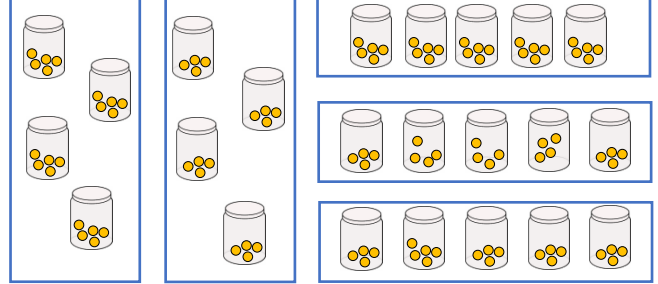
three equal groups with ten in each group?



Explain how you know.

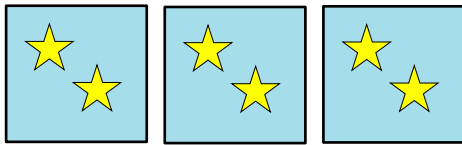
Which one of these is:

five equal groups with four in each group?

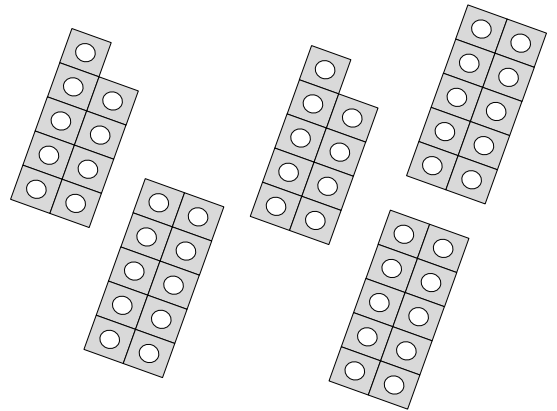


Explain how you know.

What else do you need to show:
seven fives?



What else do you need to show:
eight tens?



How many ways can you represent,
'three equal groups with six in each group?'

How many ways can you represent,
'two equal groups with seven in each group?'

How many ways can you represent,
'ten equal groups with three in each group?'

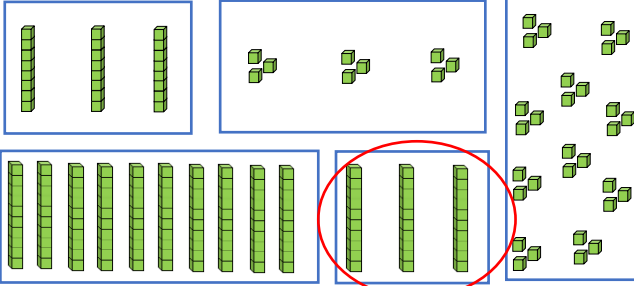
How many ways can you represent,
'five equal groups with two in each group?'



Cut out and answer the questions about equal groups.

Which one of these is:

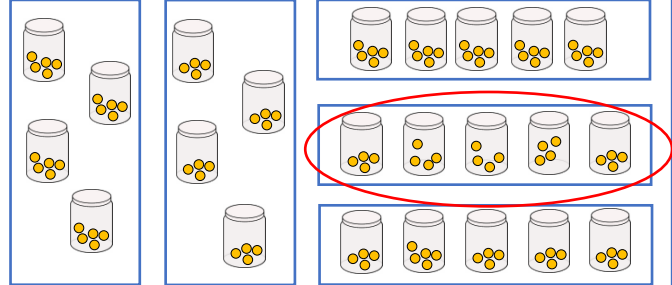
three equal groups with ten in each group?



Explain how you know.

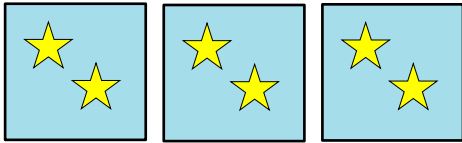
Which one of these is:

five equal groups with four in each group?



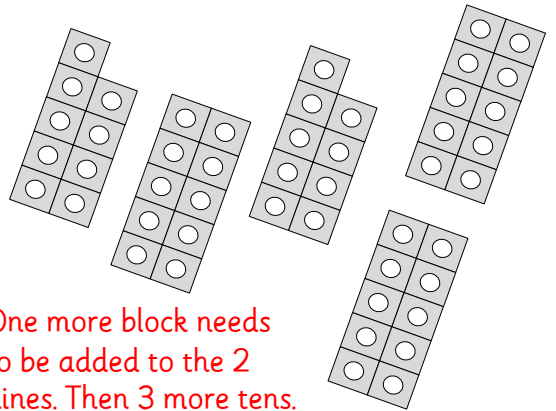
Explain how you know.

What else do you need to show:
seven fives?



Three more stars in the boxes with two stars already, then four more boxes with five stars.

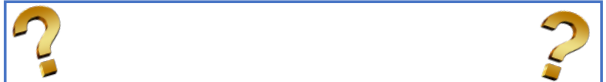
What else do you need to show:
eight tens?



One more block needs to be added to the 2 nines. Then 3 more tens.



How many ways can you represent, 'three equal groups with six in each group?'



How many ways can you represent, 'two equal groups with seven in each group?'



Multiple answers.



How many ways can you represent, 'ten equal groups with three in each group?'



How many ways can you represent, 'five equal groups with two in each group?'

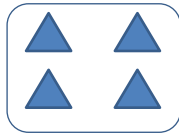
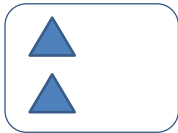


Has Zach shown the equal groups correctly?

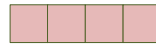


Draw or use cubes to show what Zach should have done.

Find a way to make these groups equal.



Match the equal groups.

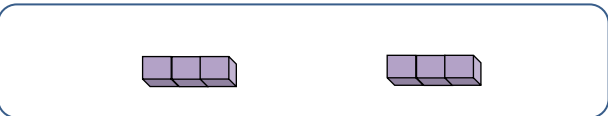


One 4

Two 2s

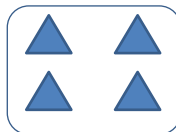
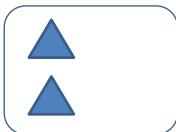
Three 10s

Has Zach shown the equal groups correctly?

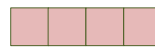


Draw or use cubes to show what Zach should have done.

Find a way to make these groups equal.



Match the equal groups.

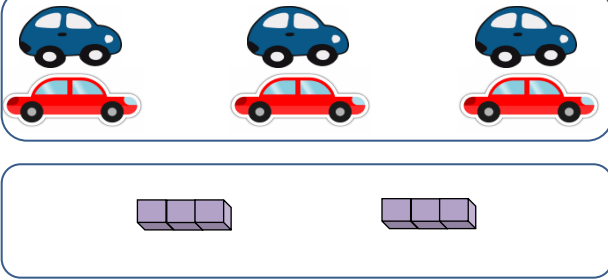


One 4

Two 2s

Three 10s

Has Zach shown the equal groups correctly?

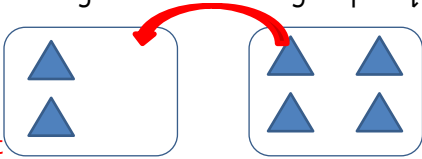


Draw or use cubes to show what Zach should have done.

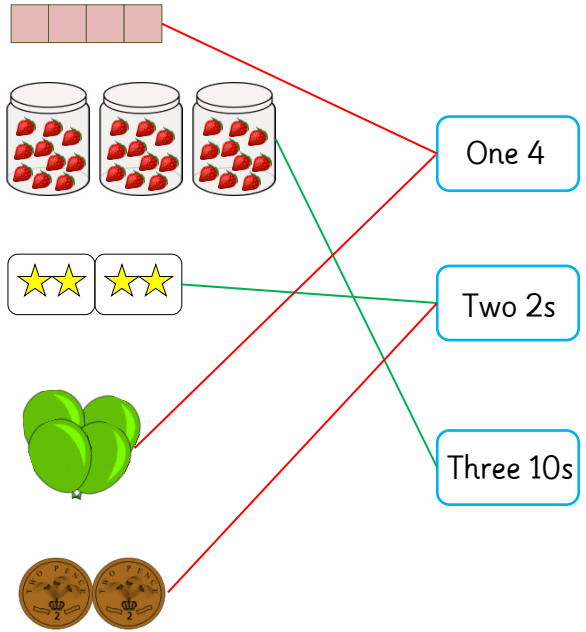
Children should make or draw three towers with 2 cubes in each.

Find a way to make these groups equal.

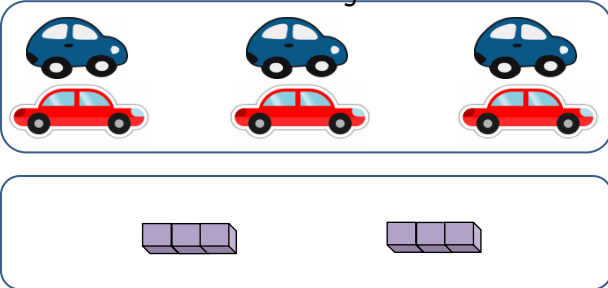
Eg. To move one triangle from right to left.



Match the equal groups.



Has Zach shown the equal groups correctly?



Draw or use cubes to show what Zach should have done.

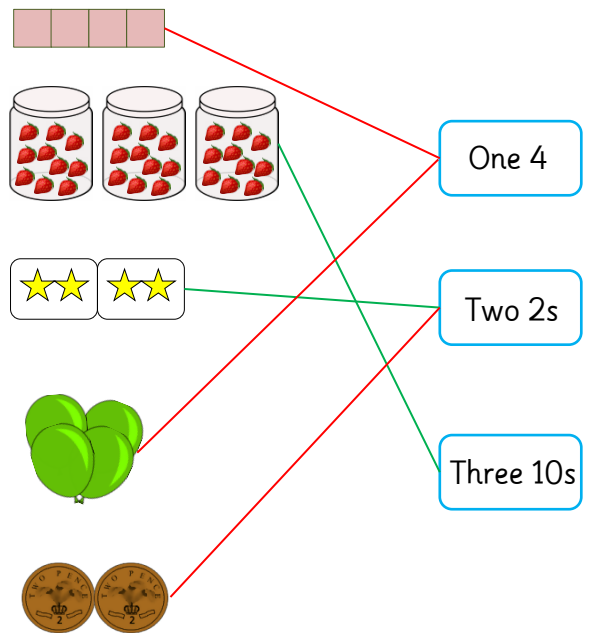
Children should make or draw three towers with 2 cubes in each.

Find a way to make these groups equal.

Eg. To move one triangle from right to left.

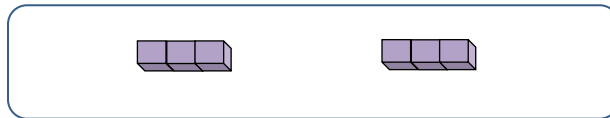
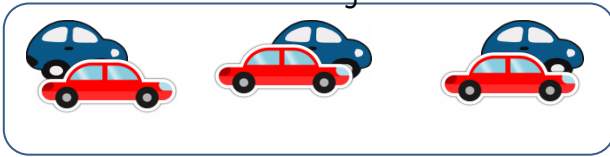


Match the equal groups.



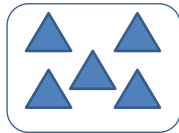
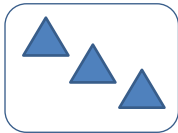


Has Zach shown the equal groups correctly?

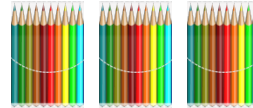
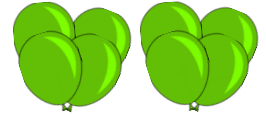
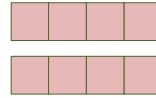


Draw or use cubes to show what Zach should have done.

Find a way to make these groups equal.



Match the equal groups.



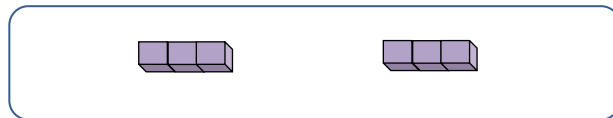
Two 4s

Three 2s

Three 10s

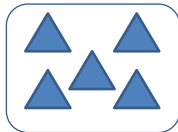
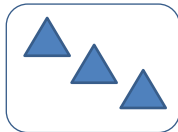


Has Zach shown the equal groups correctly?

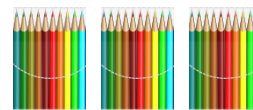
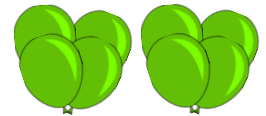
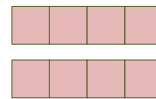


Draw or use cubes to show what Zach should have done.

Find a way to make these groups equal.



Match the equal groups,

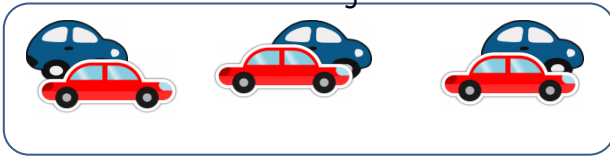


Two 4s

Three 2s

Three 10s

Has Zach shown the equal groups correctly?

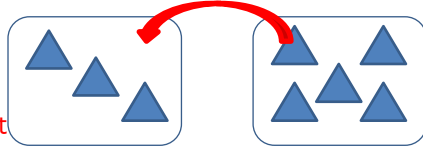


Draw or use cubes to show what Zach should have done.

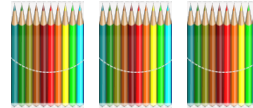
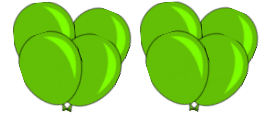
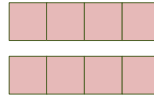
Children should make or draw three towers with 2 cubes in each.

Find a way to make these groups equal.

Eg. To move one triangle from right to left.



Match the equal groups.



Two 4s

Squares, balloons

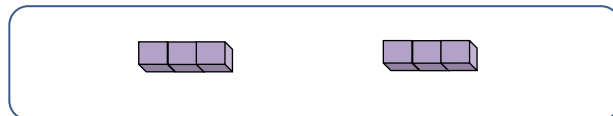
Three 2s

Stars, coins

Three 10s

Strawberries, pencils

Has Zach shown the equal groups correctly?

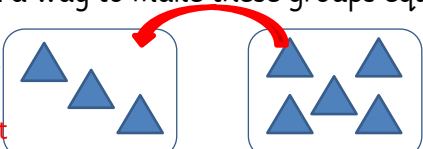


Draw or use cubes to show what Zach should have done.

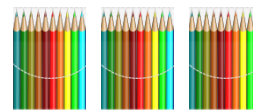
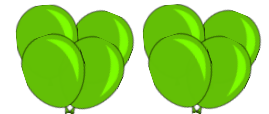
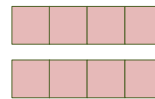
Children should make or draw three towers with 2 cubes in each.

Find a way to make these groups equal.

Eg. To move one triangle from right to left.



Match the equal groups,



Two 4s

Squares, balloons

Three 2s

Stars, coins

Three 10s

Strawberries, pencils



Has Zach shown the equal groups correctly?

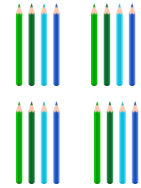
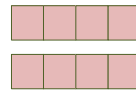


Draw or use cubes to show what Zach should have done.

Find a way to make these groups equal.



Match the equal groups.



Two 4s

Four 4s

Four 2s



Has Zach shown the equal groups correctly?

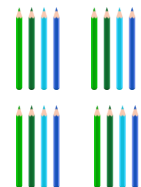
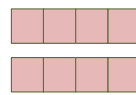


Draw or use cubes to show what Zach should have done.

Find a way to make these groups equal.



Match the equal groups.



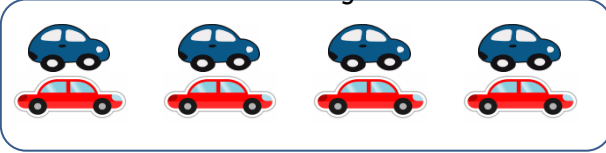
Two 4s

Four 4s

Four 2s



Has Zach shown the equal groups correctly?

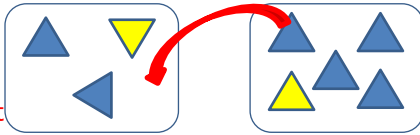


Draw or use cubes to show what Zach should have done.

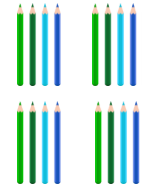
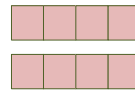
Children should get or draw four dice showing 2 on each die.

Find a way to make these groups equal.

Eg. To move one triangle from right to left.



Match the equal groups.



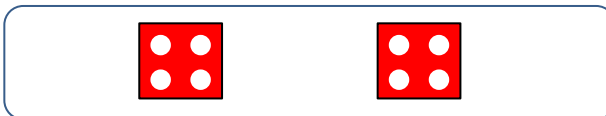
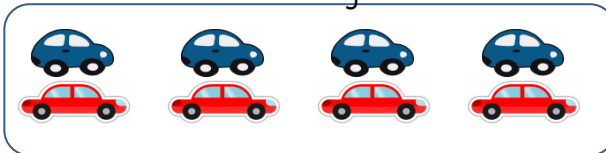
Two 4s
Squares,
balloons

Four 4s
Strawberries,
pencils

Four 2s
Stars,
coins



Has Zach shown the equal groups correctly?

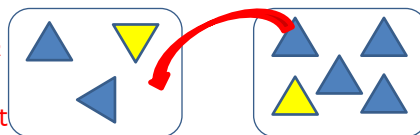


Draw or use cubes to show what Zach should have done.

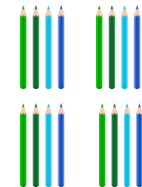
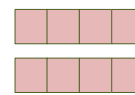
Children should make or draw four towers with 2 cubes in each.

Find a way to make these groups equal.

Eg. To move one triangle from right to left.



Match the equal groups.



Two 4s
Squares,
balloons

Four 4s
Strawberries,
pencils

Four 2s
Stars,
coins