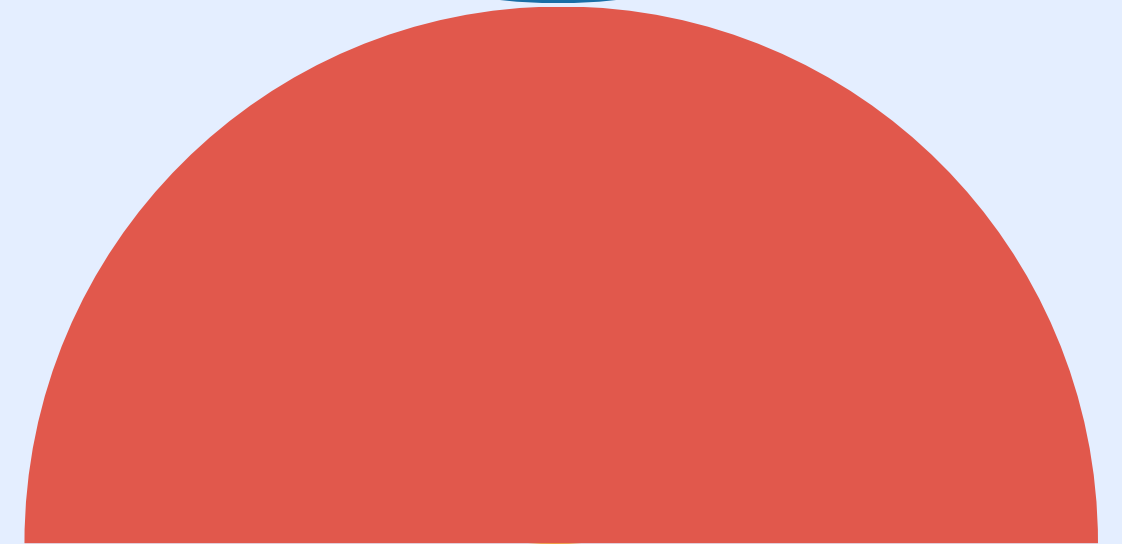
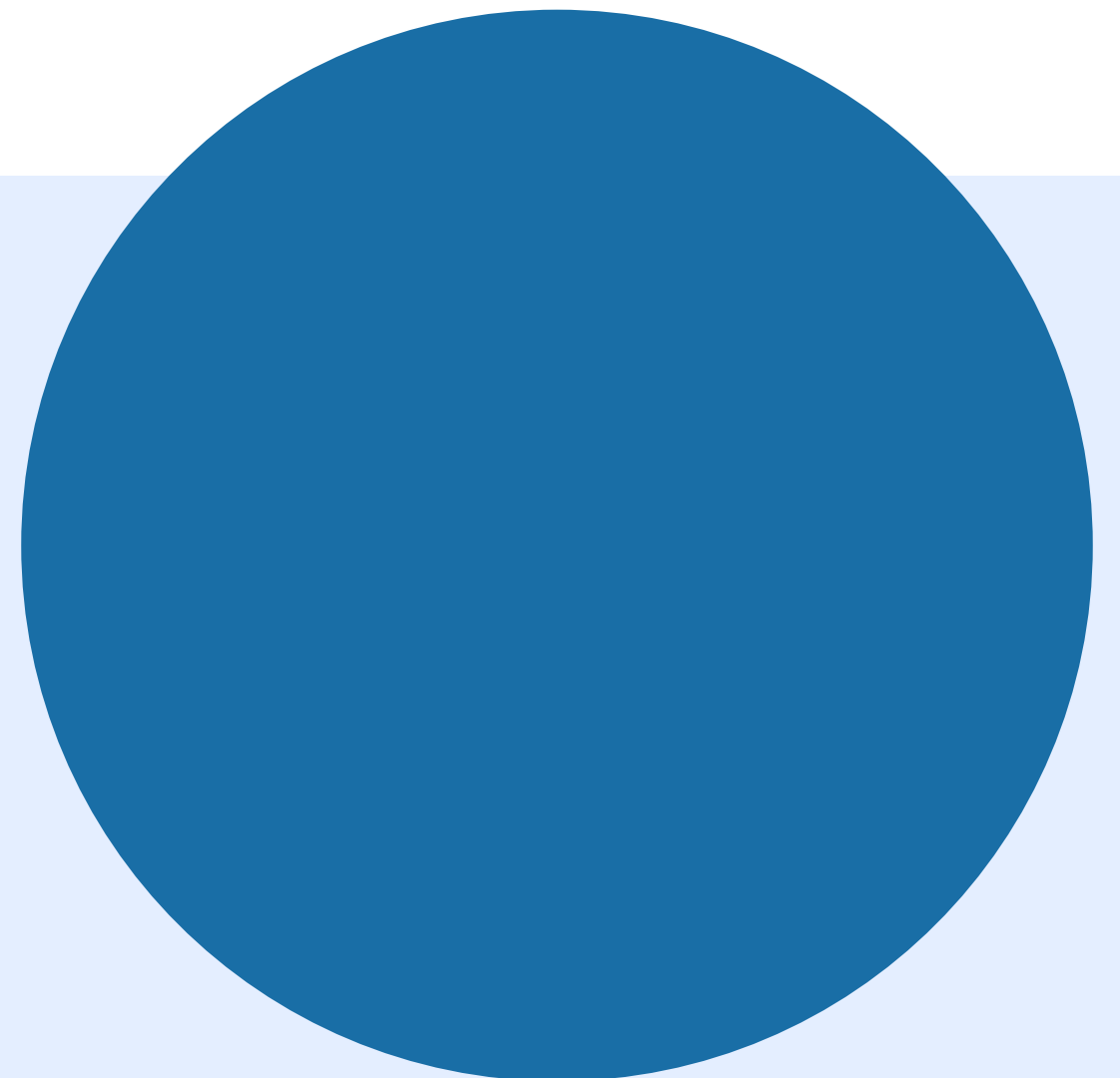
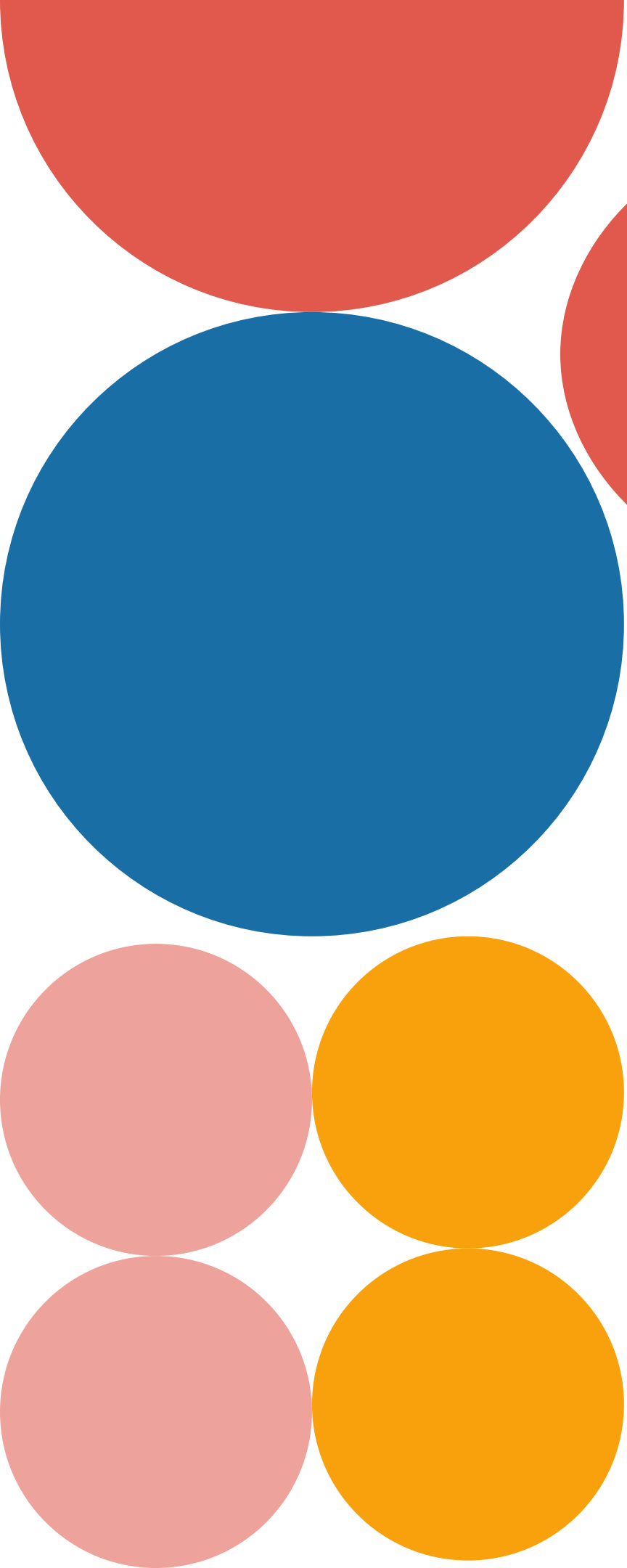


Multiplication & Division Using Equal Groups



A decorative graphic on the left side of the slide. It features a large blue circle in the center. Above it is a red circle. Below it are two smaller circles, one pink and one orange. At the bottom are two more circles, one pink and one orange, arranged in a 2x2 grid.

Note to Teachers

At the end of this lesson, the students will be able to

- Understand multiplication by thinking about groups of objects
- Understand division by thinking about how one group can be divided into smaller groups
- Find the missing number in a multiplication or division equation

This presentation provides instructions followed by some examples. Feel free to add more examples to reinforce any of the topics covered.

During this lesson, you'll learn to:

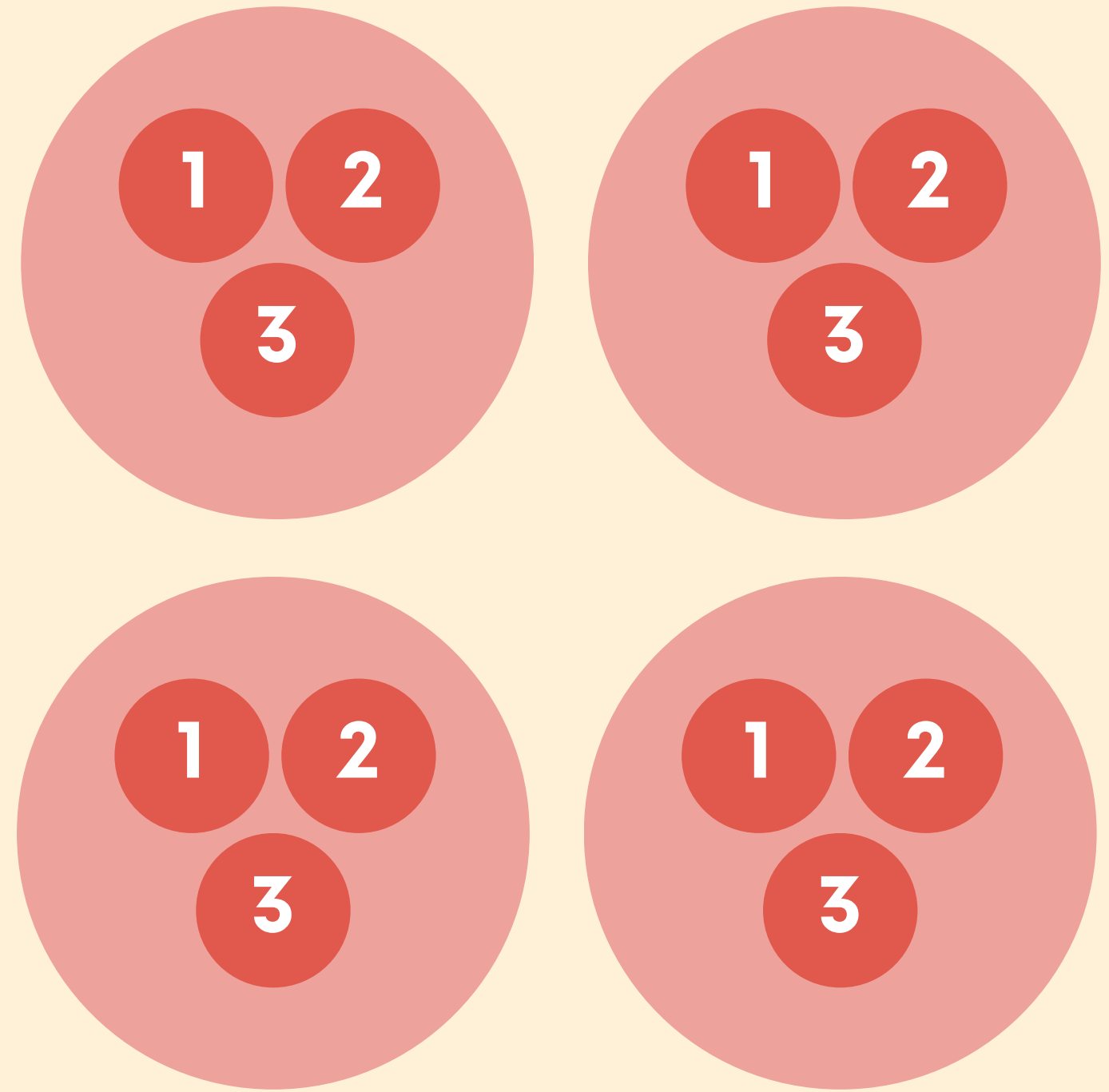
- Understand multiplication by thinking about groups of objects
- Understand division by thinking about how one group can be divided into smaller groups
- Find the missing number in a multiplication or division equation



What are Equal Groups?

Groups are called equal groups if they have the same number of objects.

In equal groups, there are an equal number of objects or things grouped.



There are four groups of three items.
We can write this as: **4 groups of 3**

What is Multiplication?

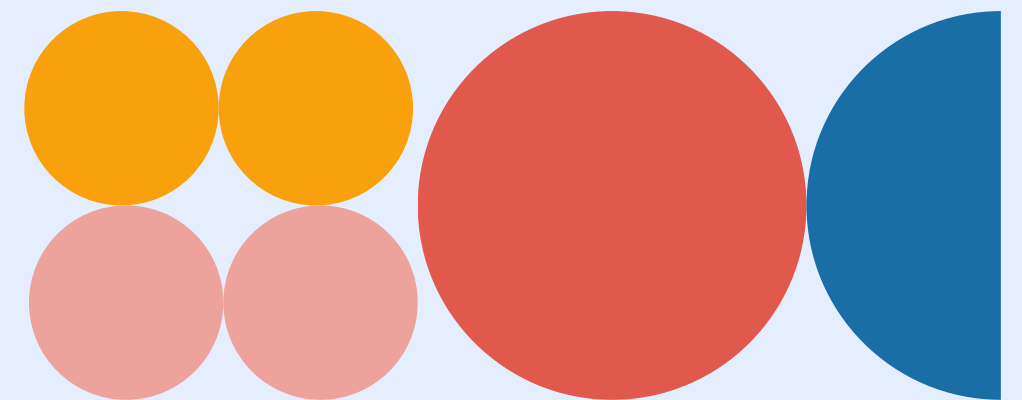
Multiplication is all about making equal groups with numbers.

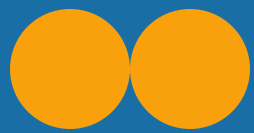
We can represent equal groups as a multiplication expression and then solve it to find the answer.

Number of
groups

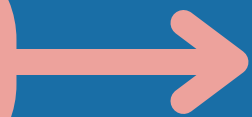
Number of items
in each group

$$2 \times 4$$





Number of
groups

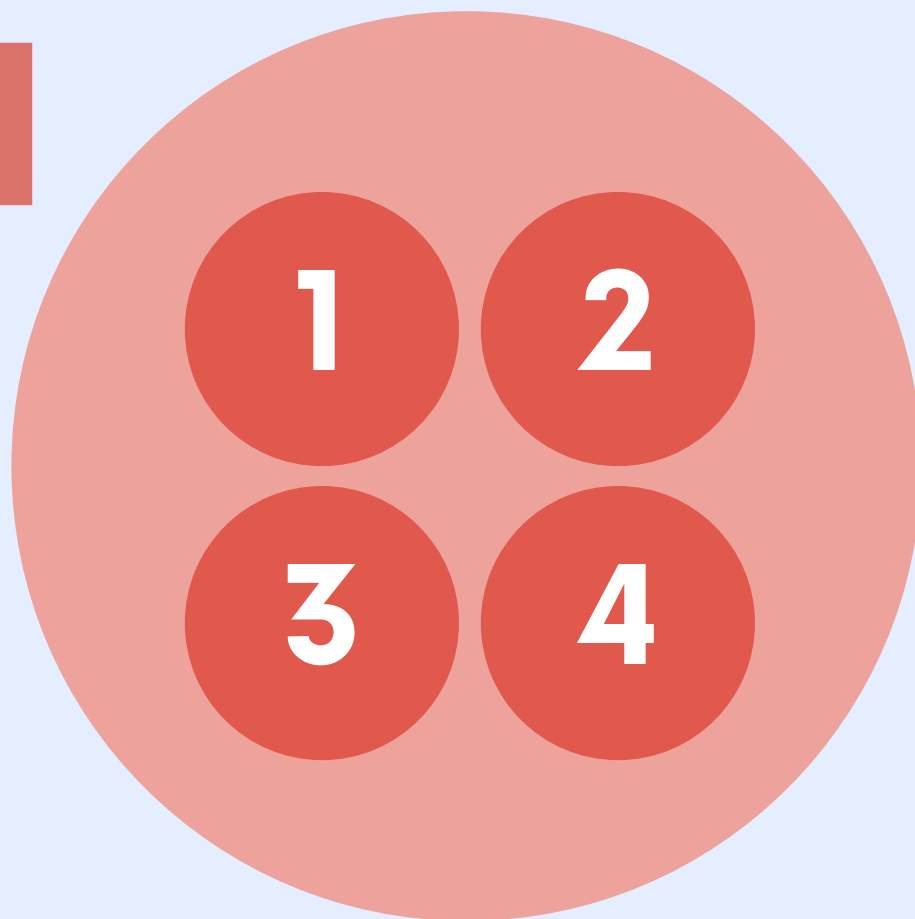


$$2 \times 4$$

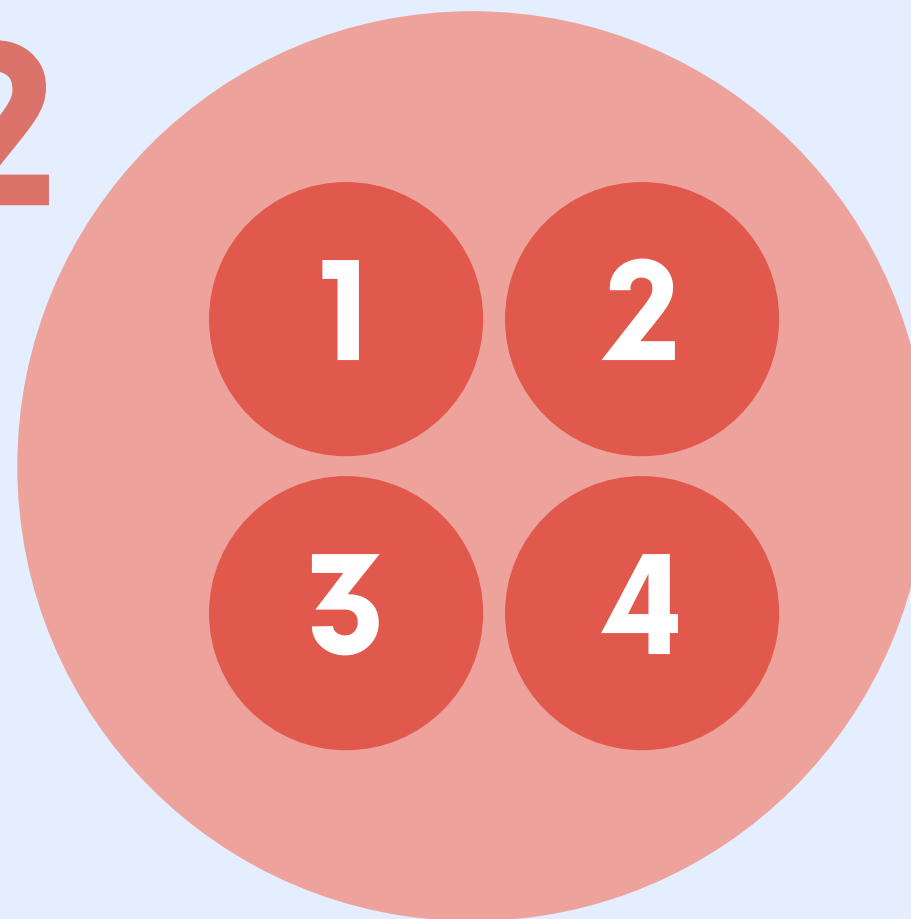


Number of items
in each group

1



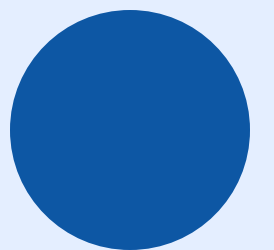
2



2 groups of 4 items

So, the total
number of items:

$$2 \times 4 = 8$$



You Give it a Try!

Number of
groups



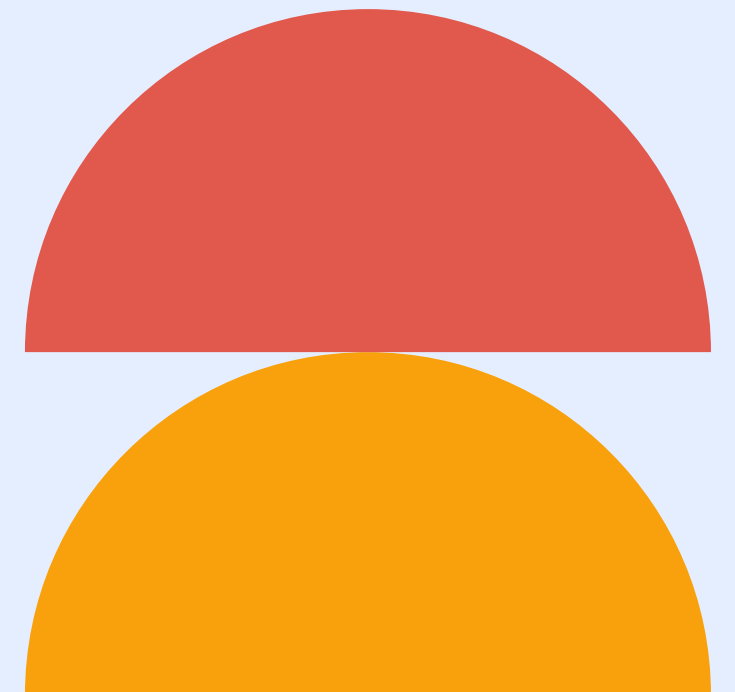
5

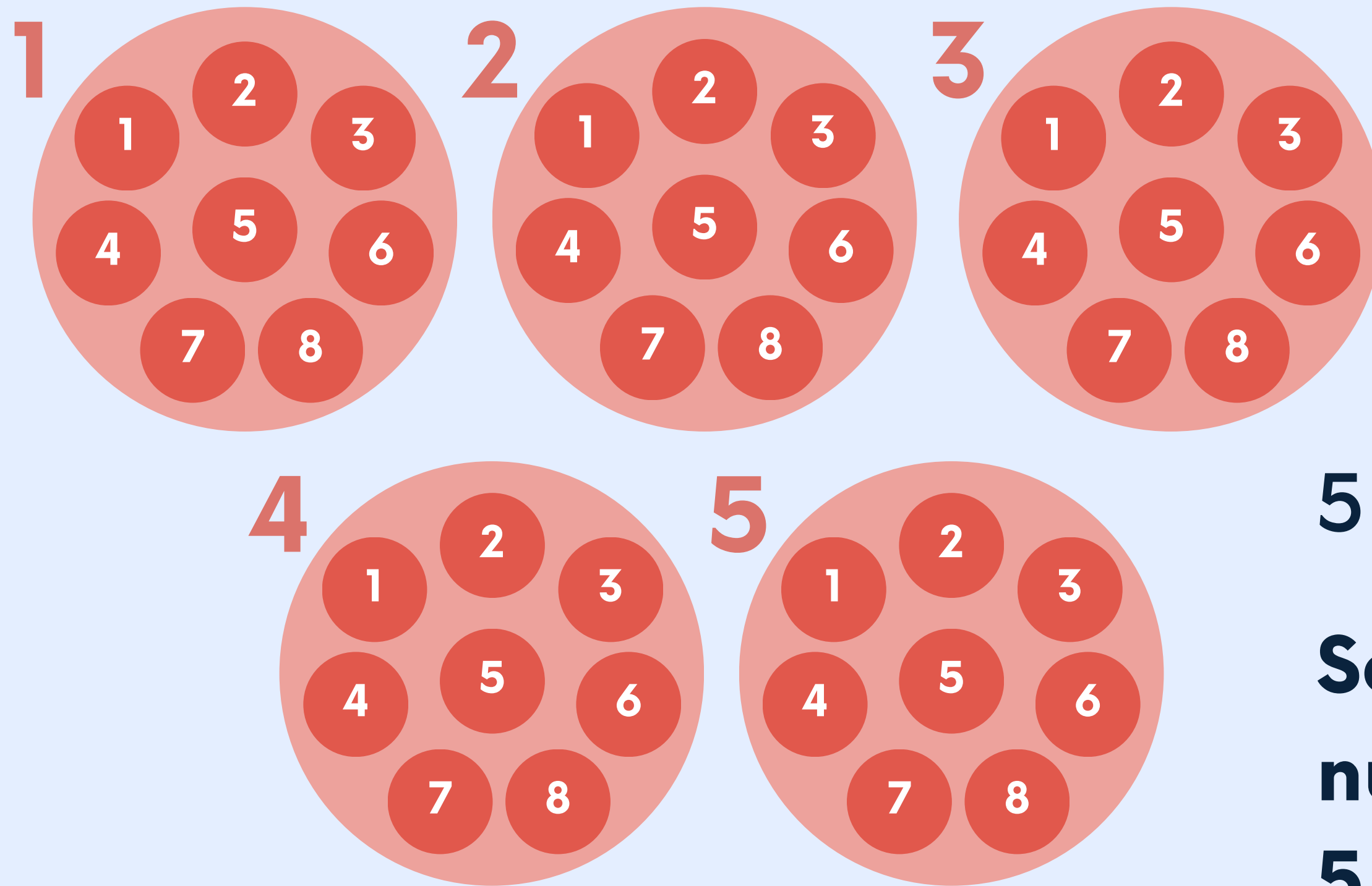
Number of items
in each group



8

x

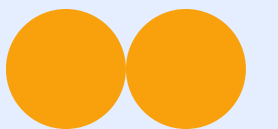




5 groups of 8 items

**So, the total
number of items:**

$$5 \times 8 = 40$$

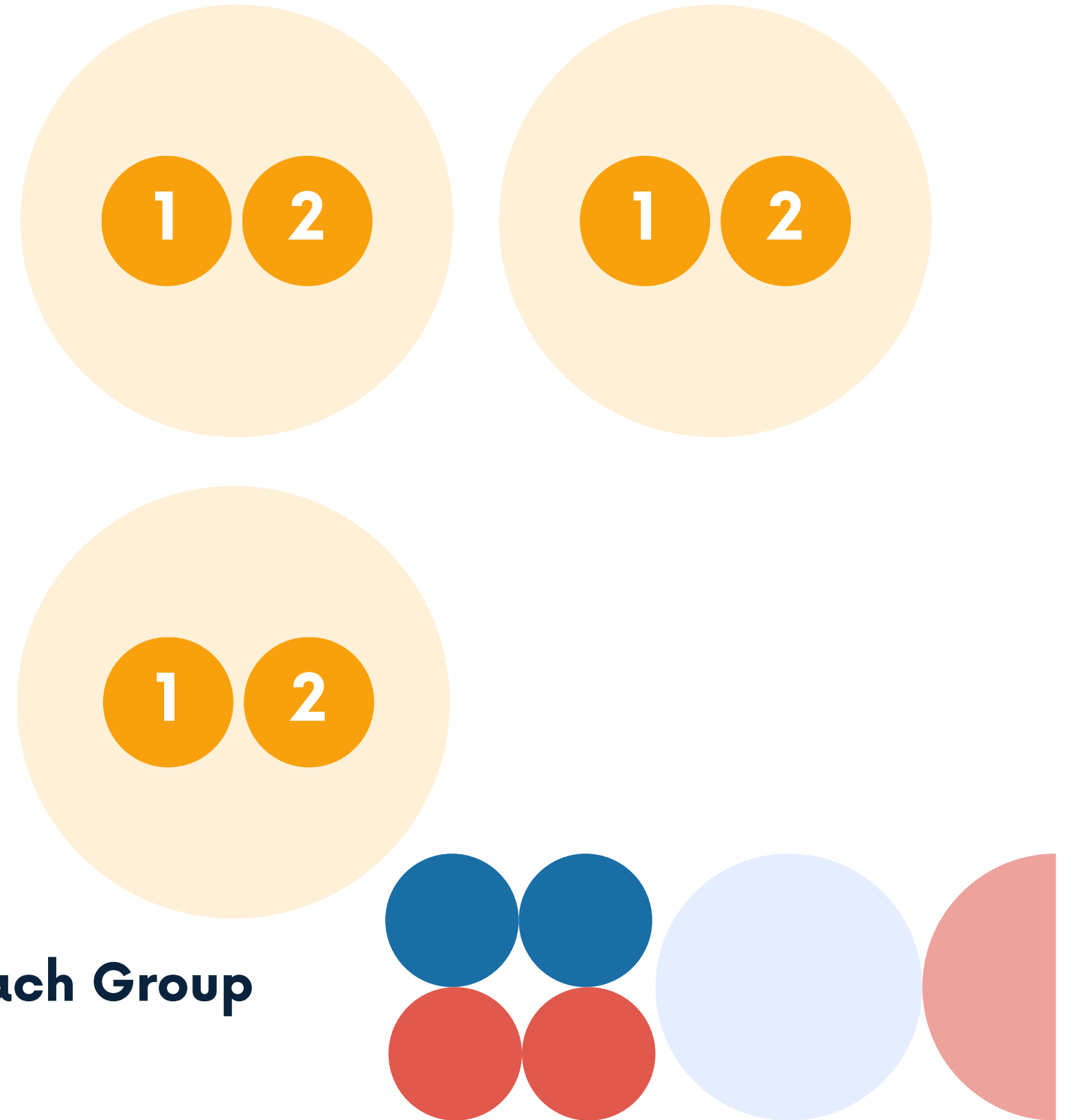


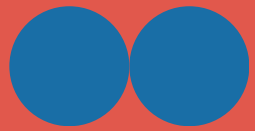
What is Division?

Division means distributing something into equal groups.

The quotient represents the number of groups:

Total Number ÷ Number of Groups = Number in each Group





Total number of
items



$$6 \div 3 = 2$$

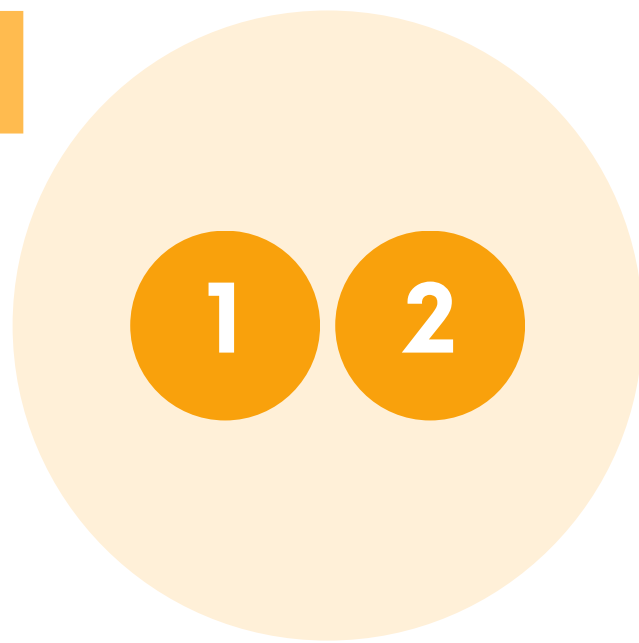
Number of
groups



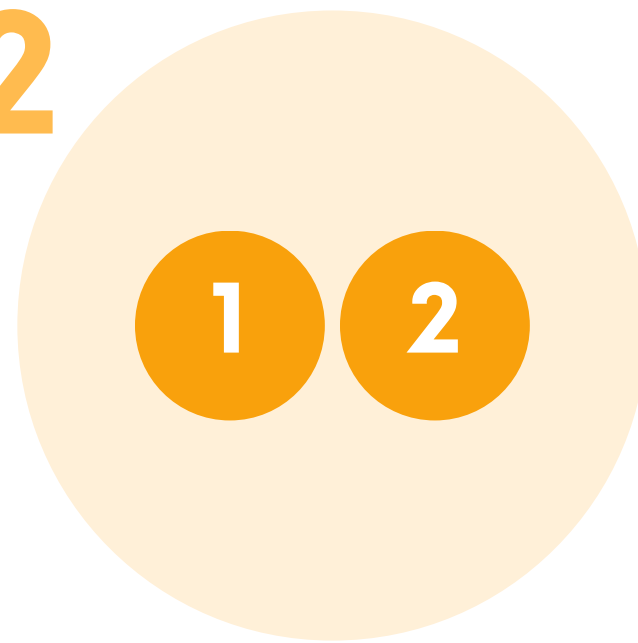
Number of items
in each group



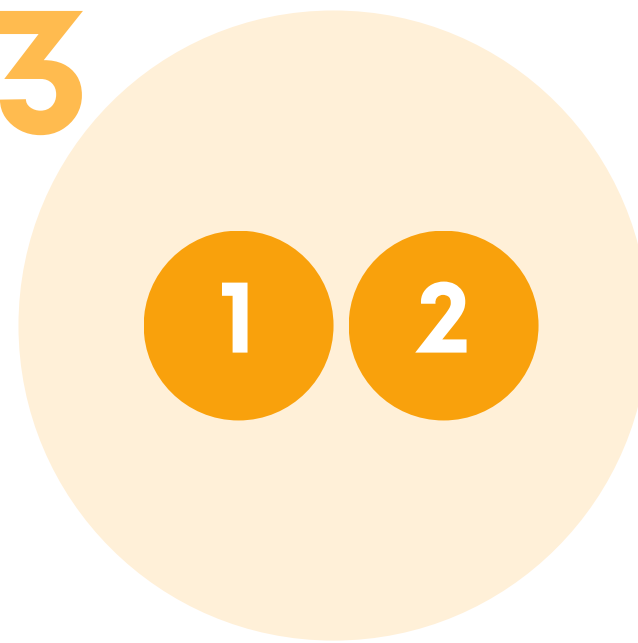
1



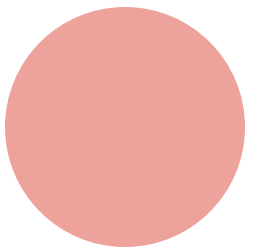
2



3



**6 items distributed
into 3 groups with 2
items in each**



You Give it a Try!

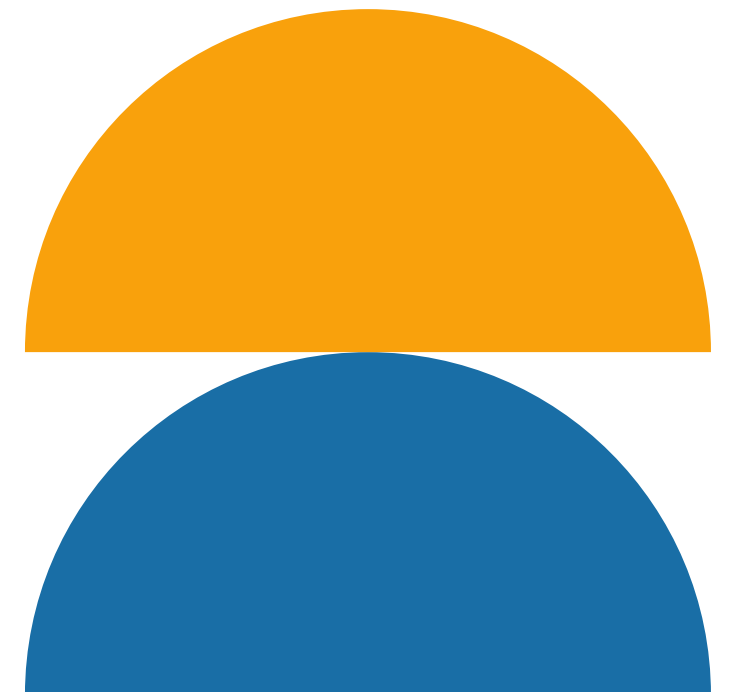
Total number of
items

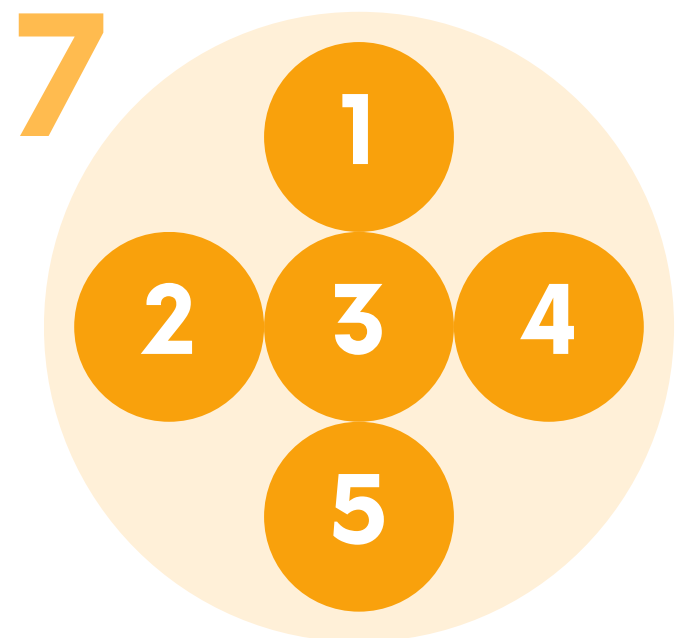
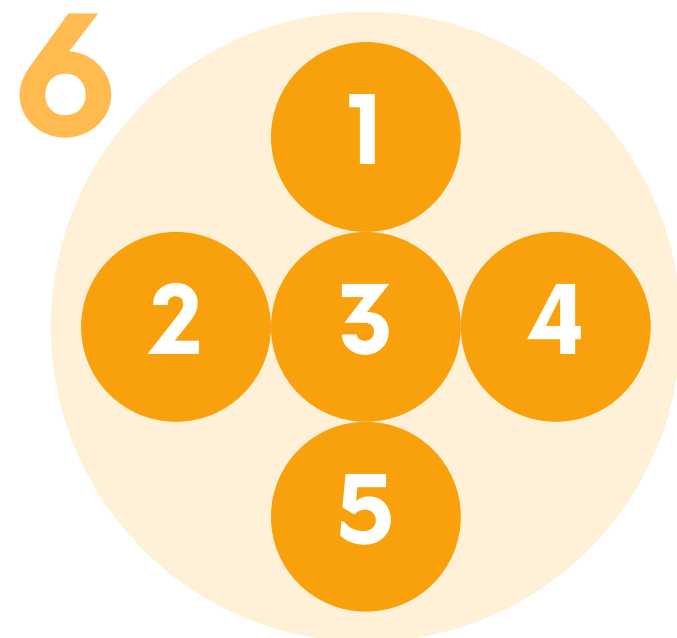
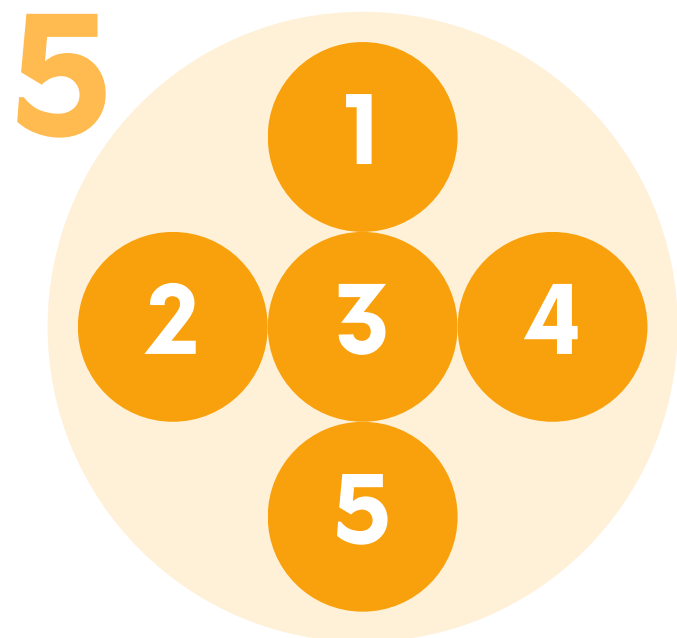
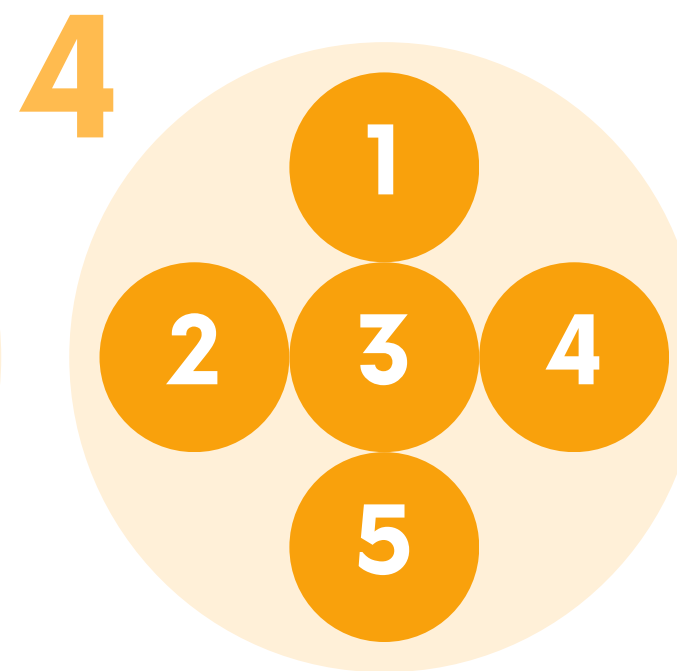
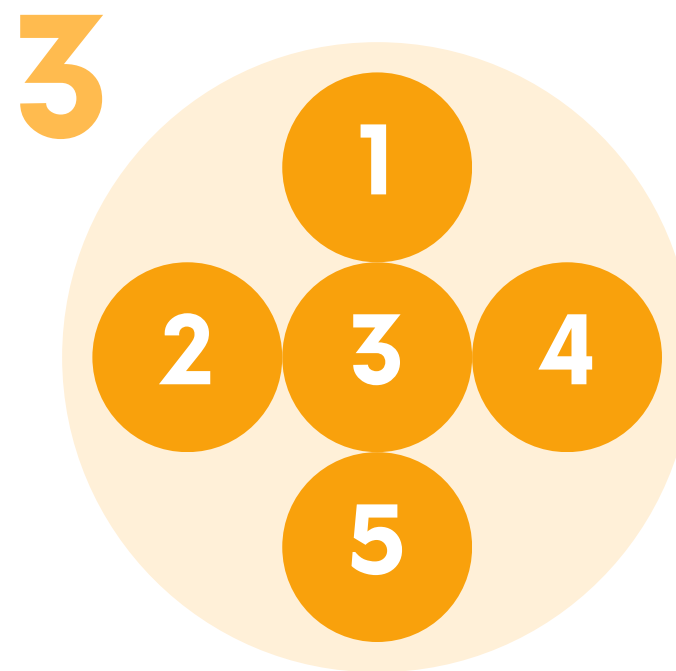
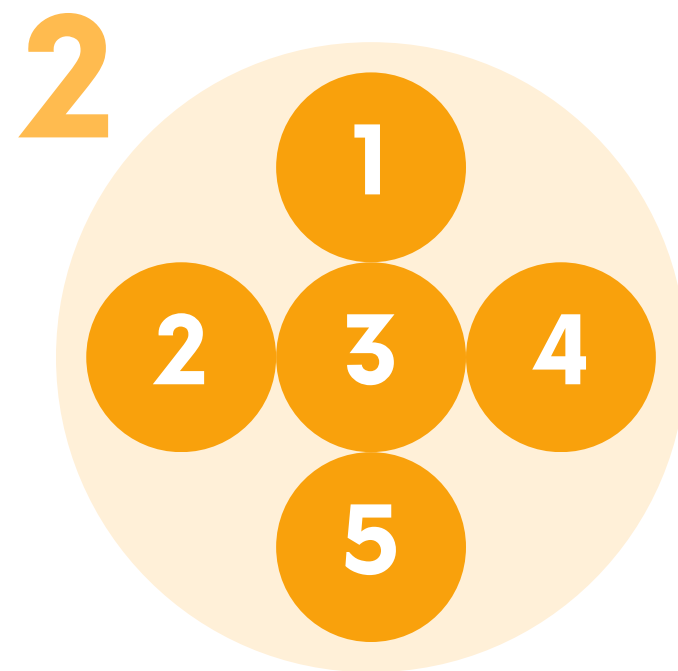
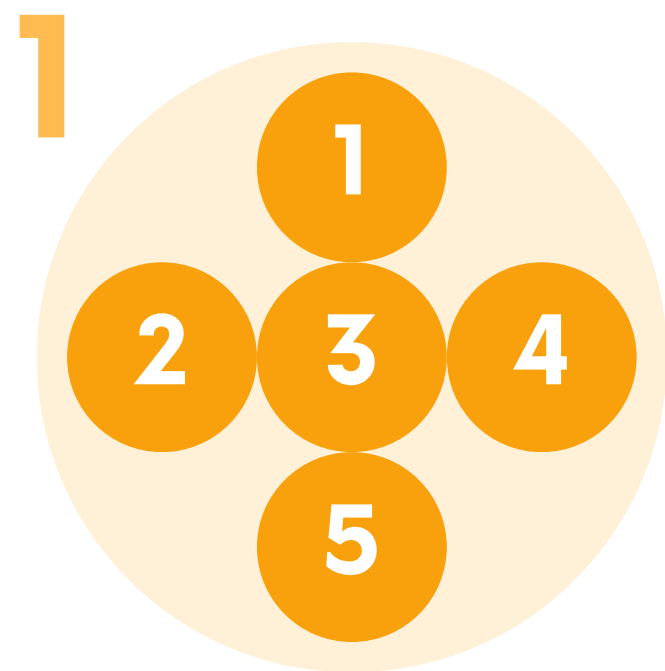


Number of
groups



$$35 \div 7$$





35 items in 7 groups

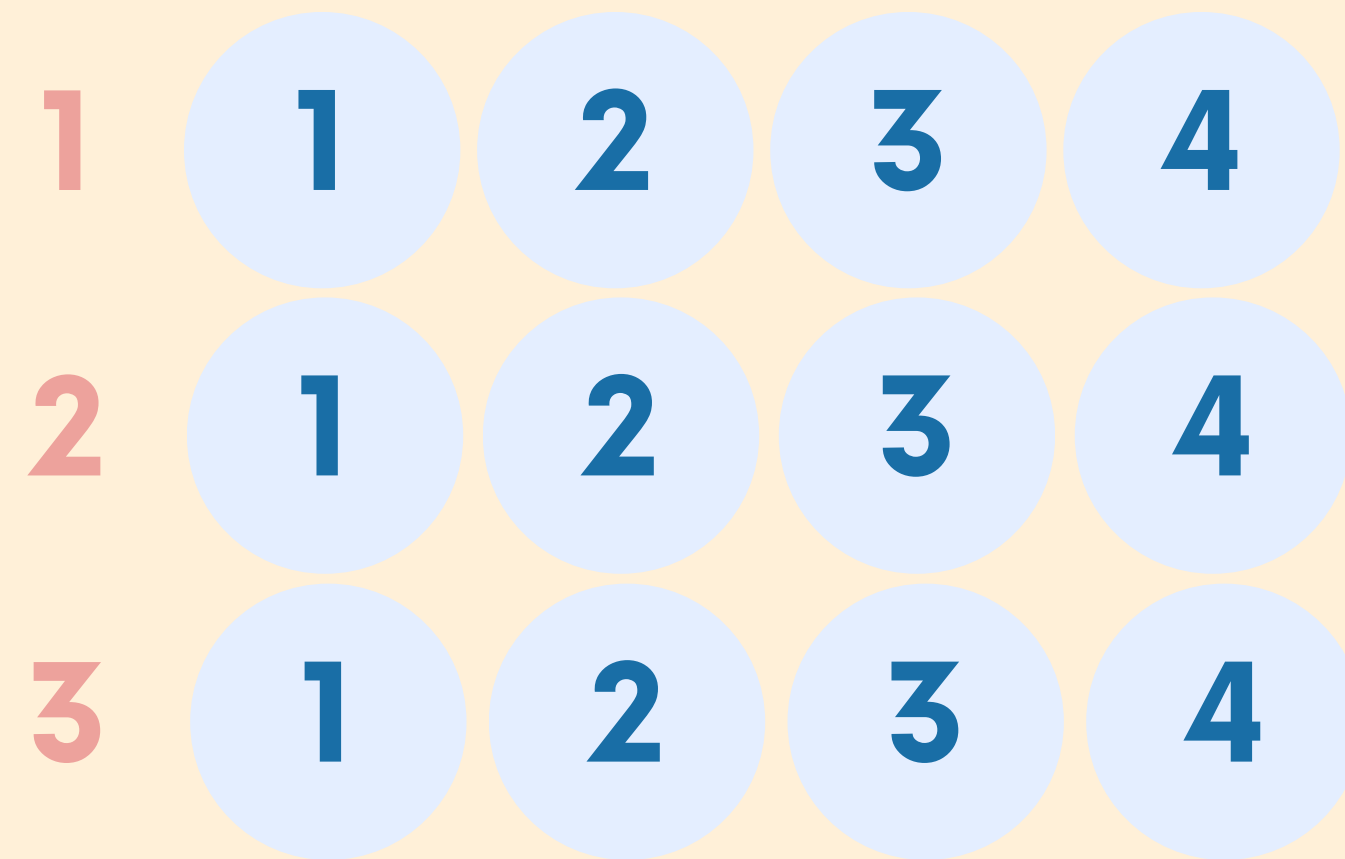
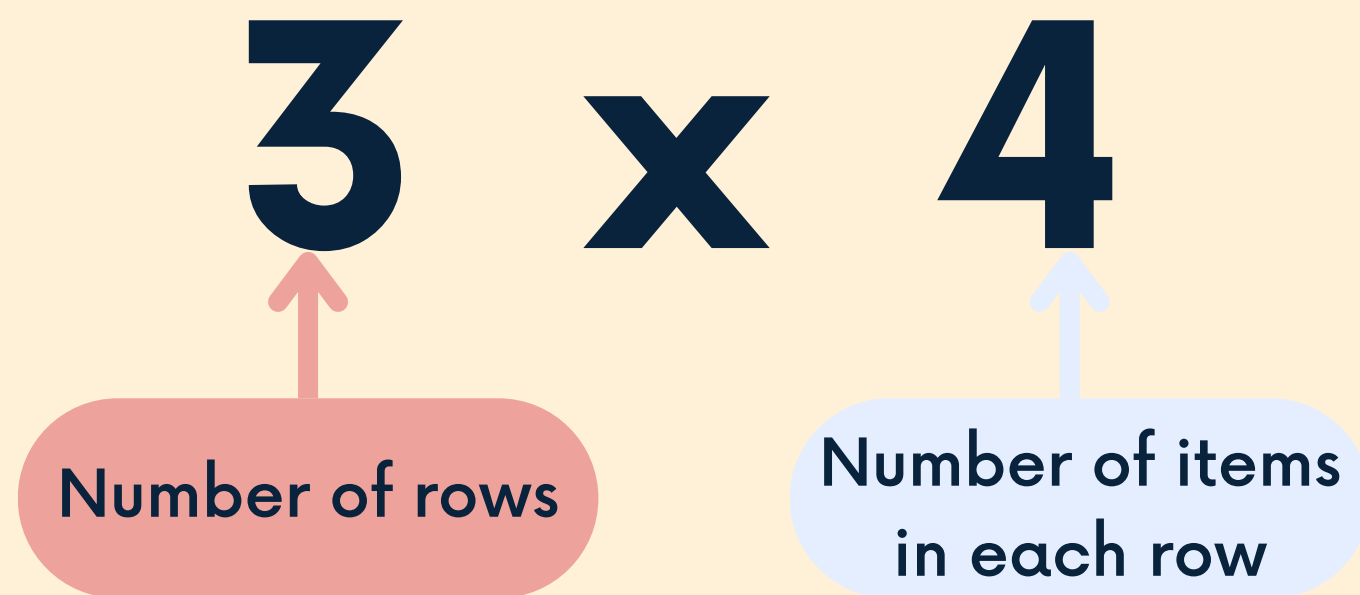
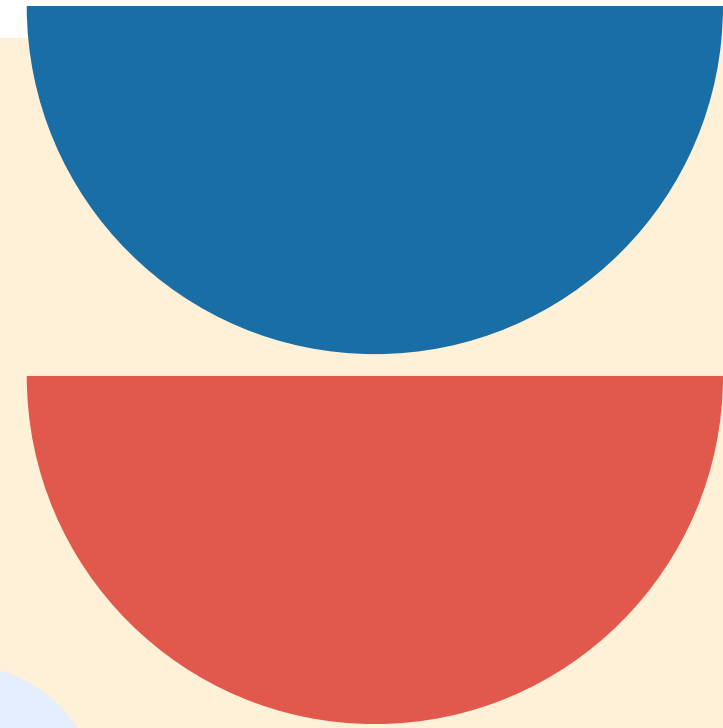
**So, the total number
in each group:**

$$35 \div 7 = 5$$



Equal Groups as Arrays

There is yet another way of representing equal groups that is more organized.



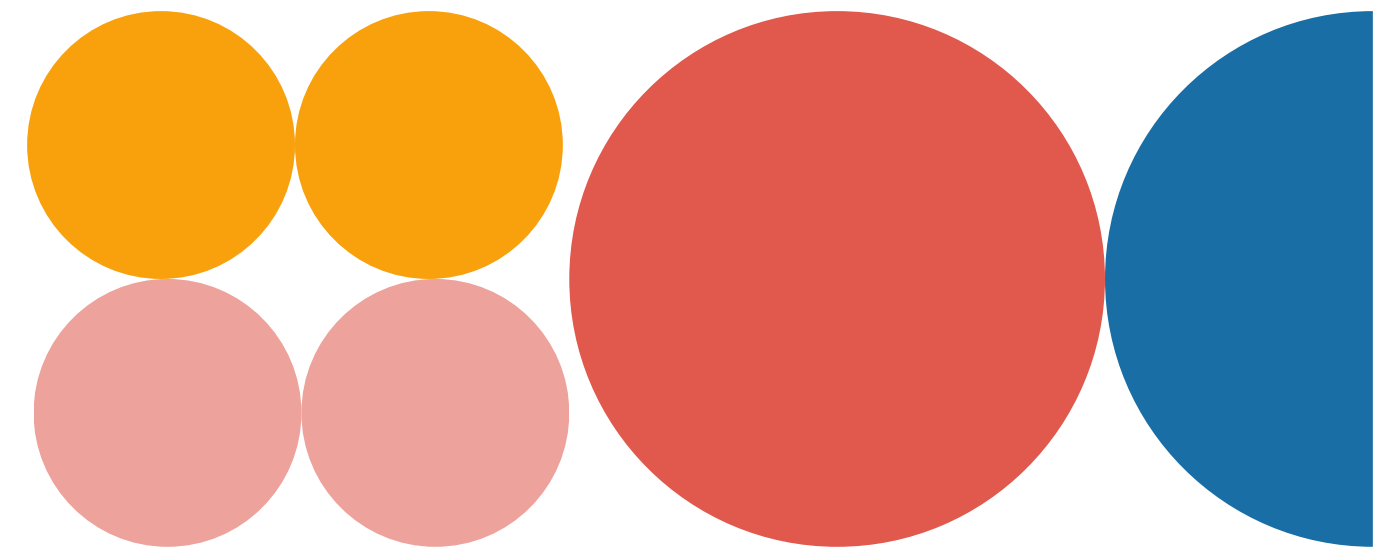
So, the total number of items:
 $3 \times 4 = 12$

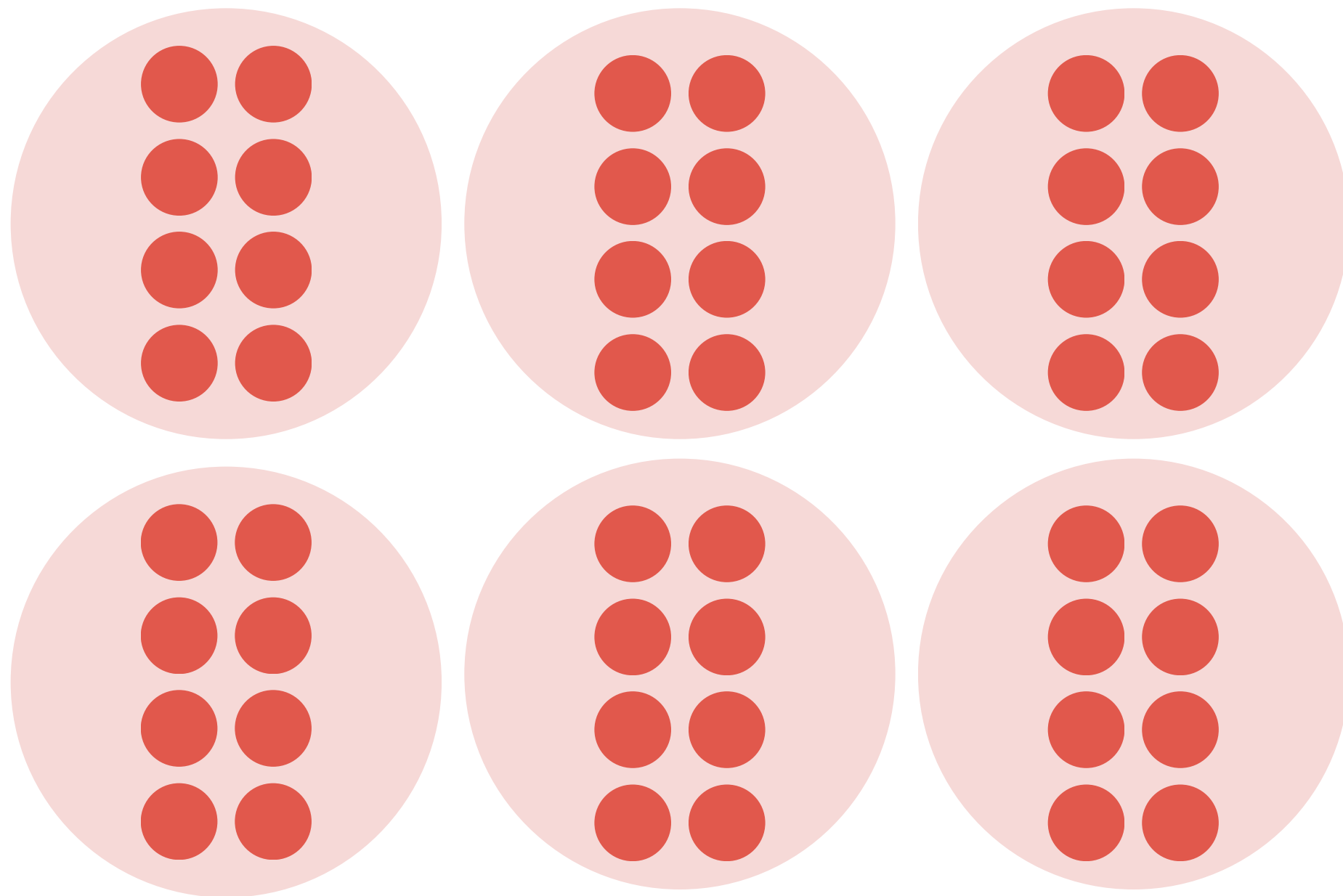
PRACTICE PROBLEM:

**Draw equal groups to solve
this multiplication problem:**

**Jose buys 6 packs of 8
crayons.**

**How many crayons
does he buy in all?**





6 groups of 8 crayons

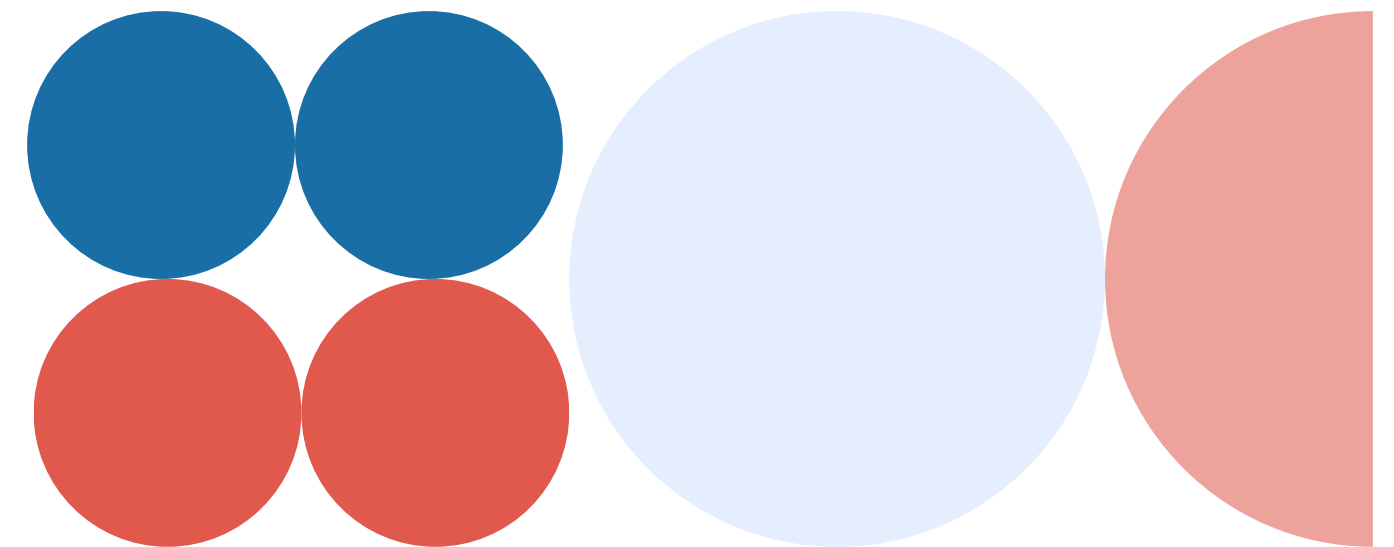
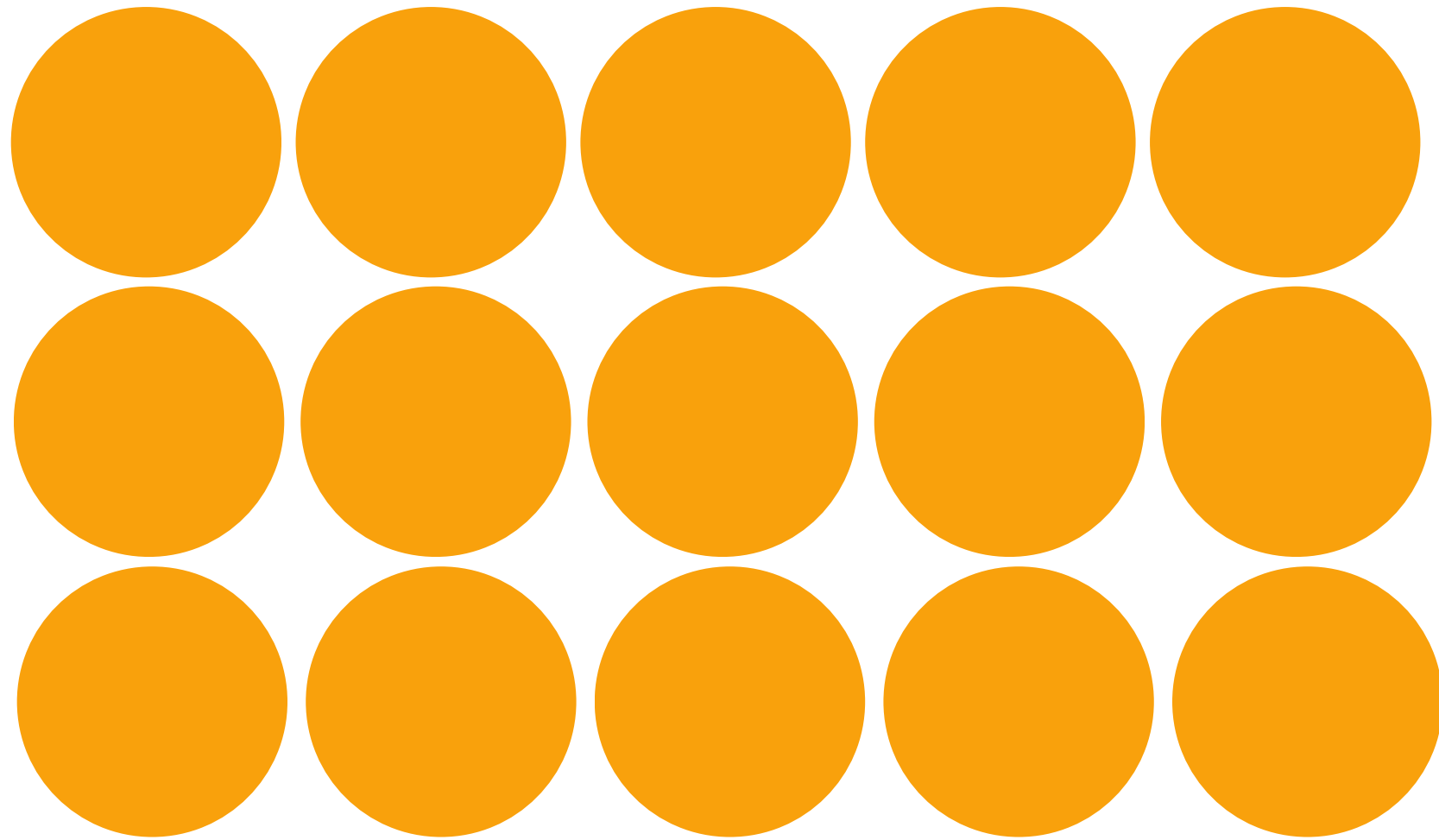
**So, the total number
of crayons:**

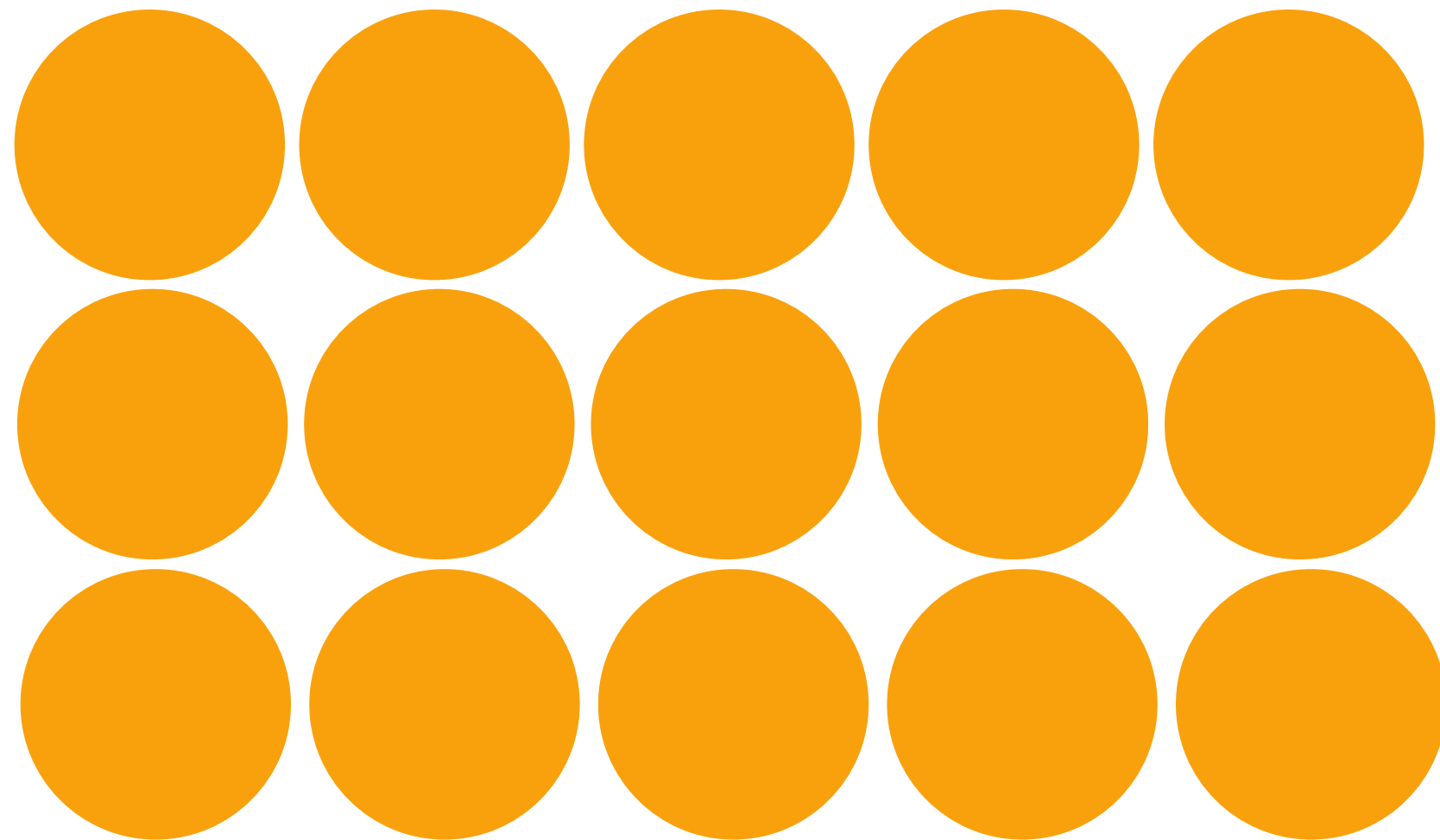
$$6 \times 8 = 48 \text{ crayons}$$



PRACTICE PROBLEM:

What multiplication problem describes this array?

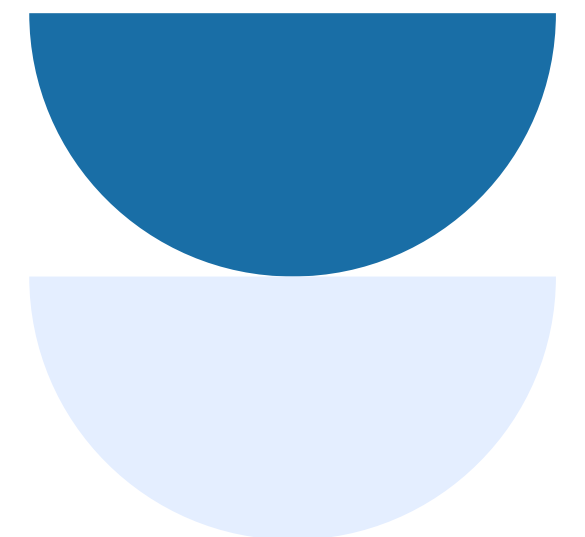




3 rows of 5 items

**So, this represents
the problem:**

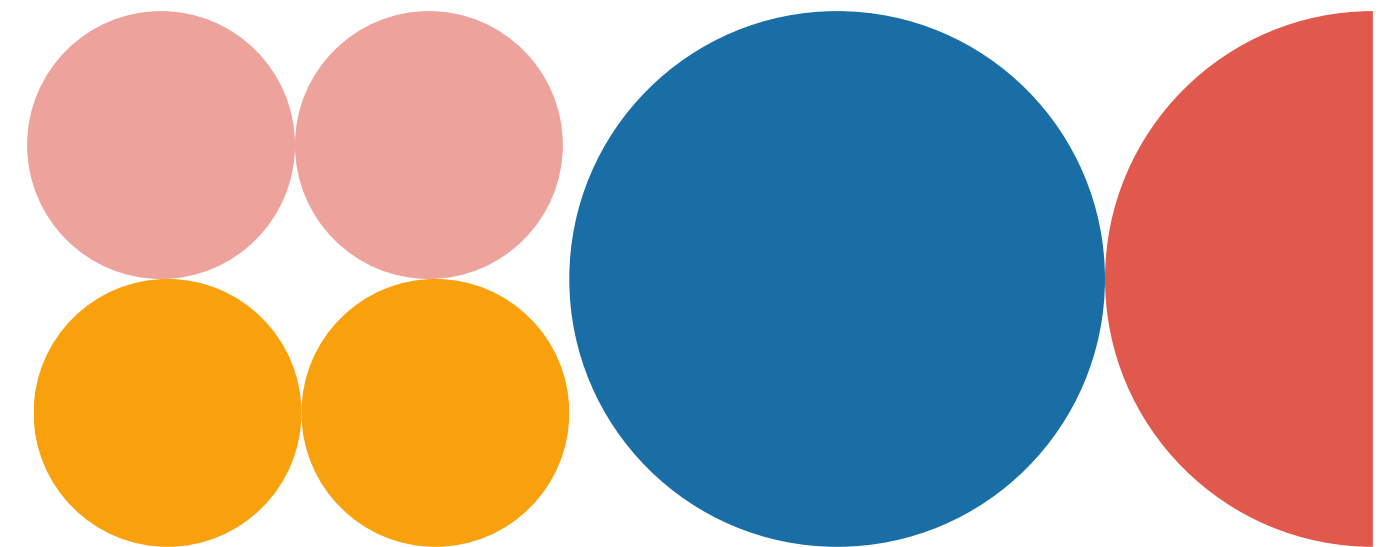
$$3 \times 5 = 15$$

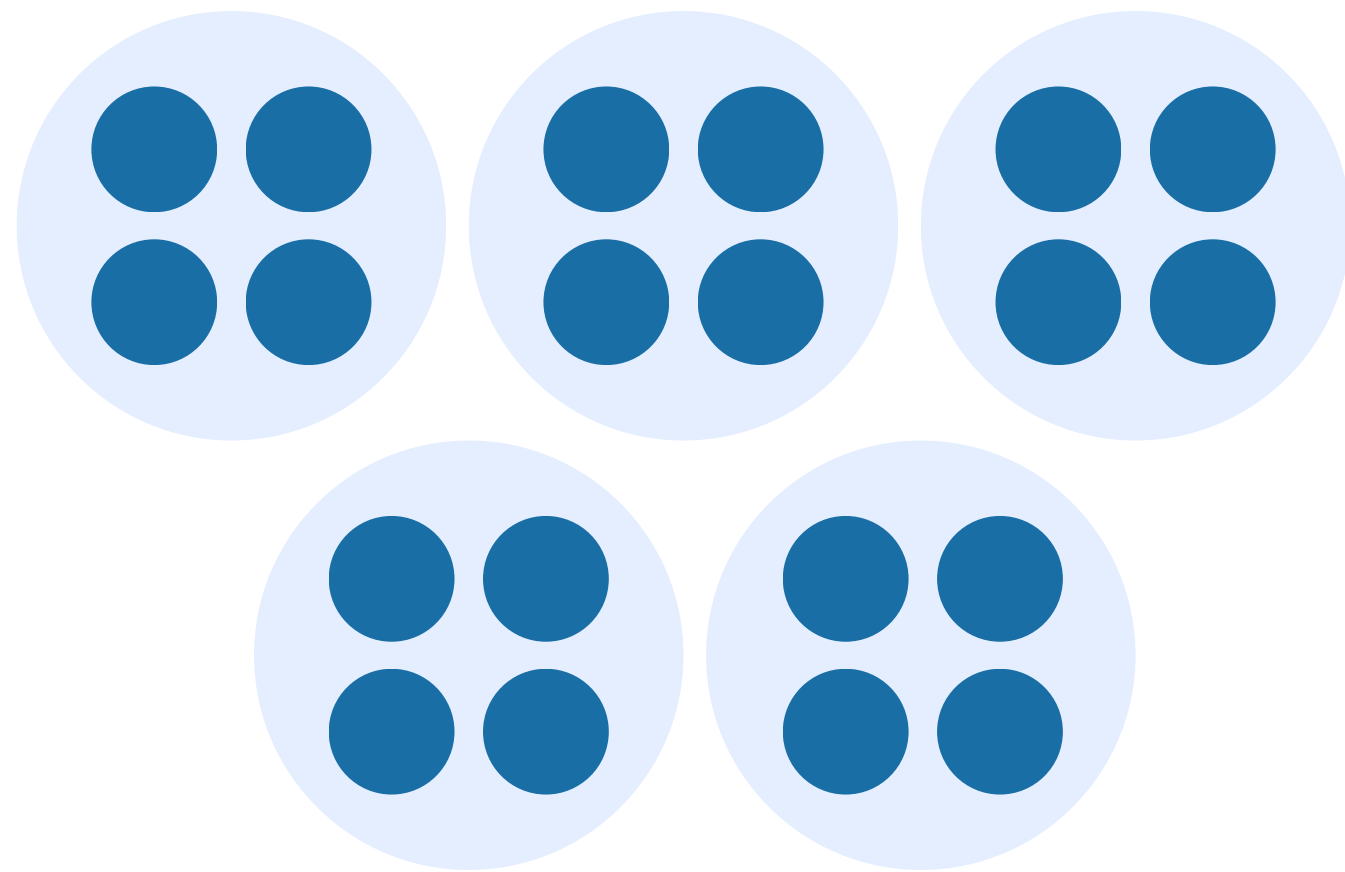


PRACTICE PROBLEM:

Draw equal groups to solve
the missing number:

$$5 \times \underline{\quad} = 20$$

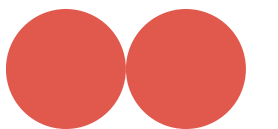




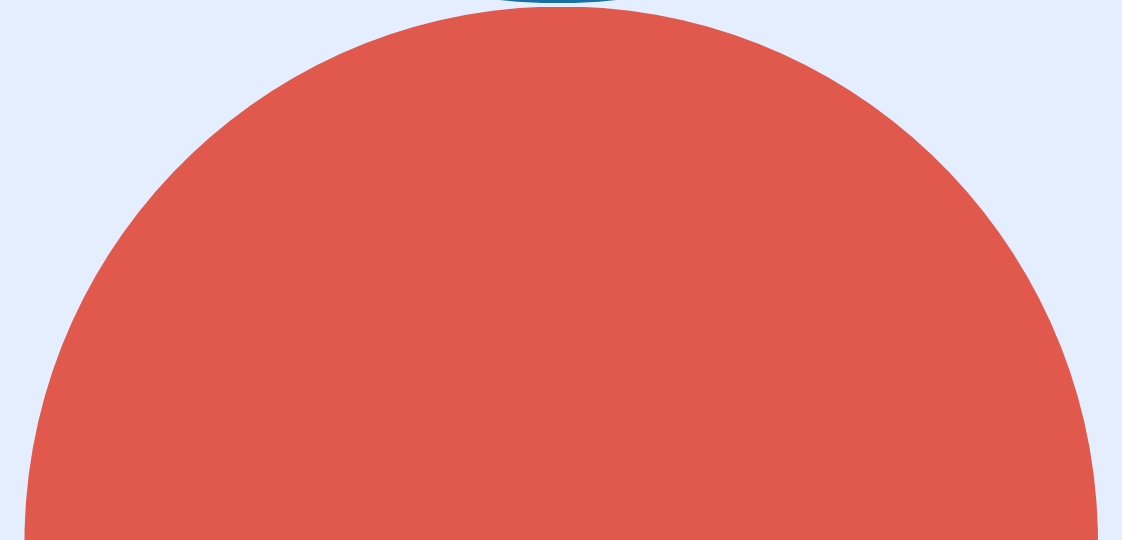
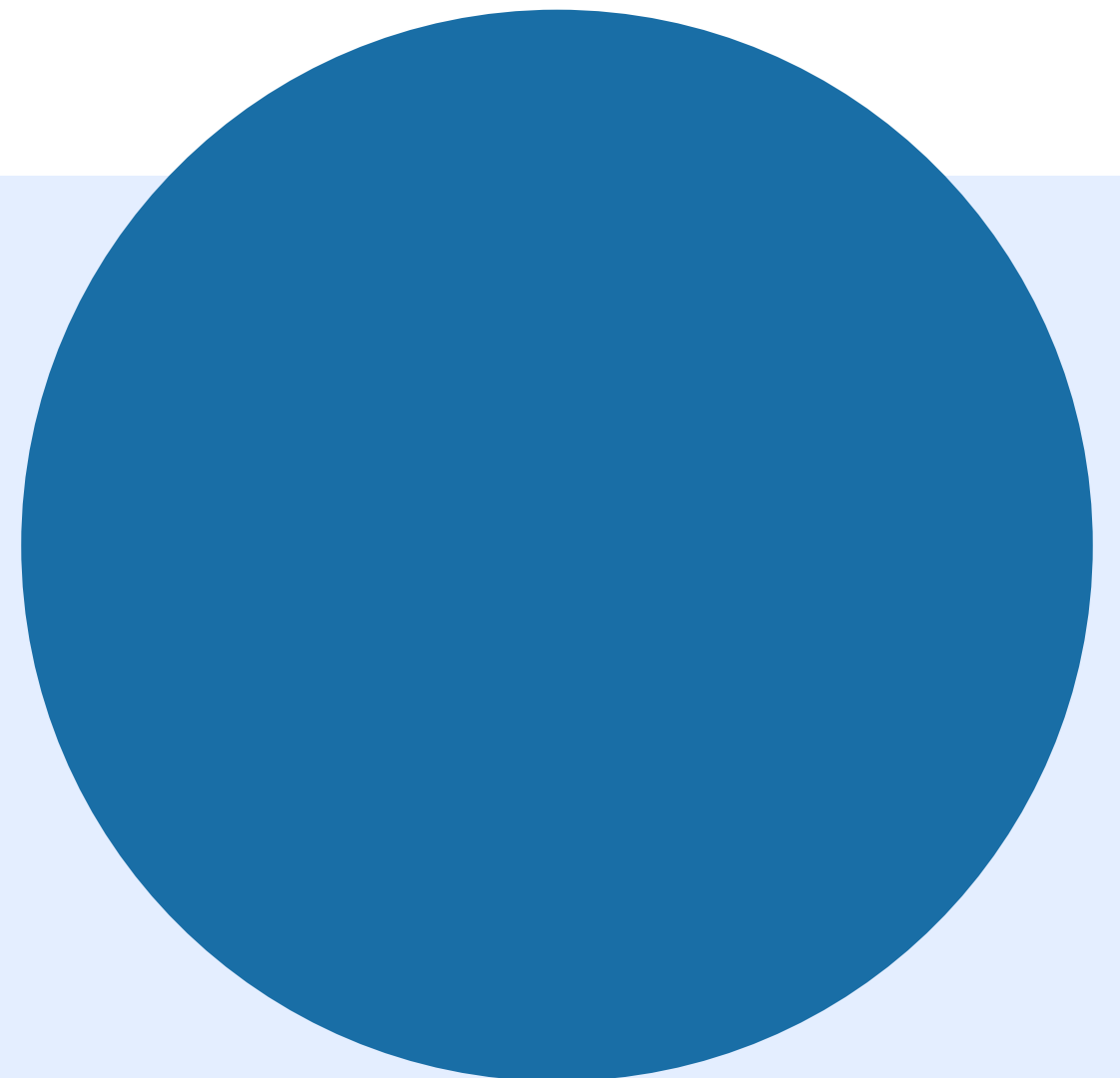
**20 items distributed
into 5 groups**

**So, the total number in
each group is 4:**

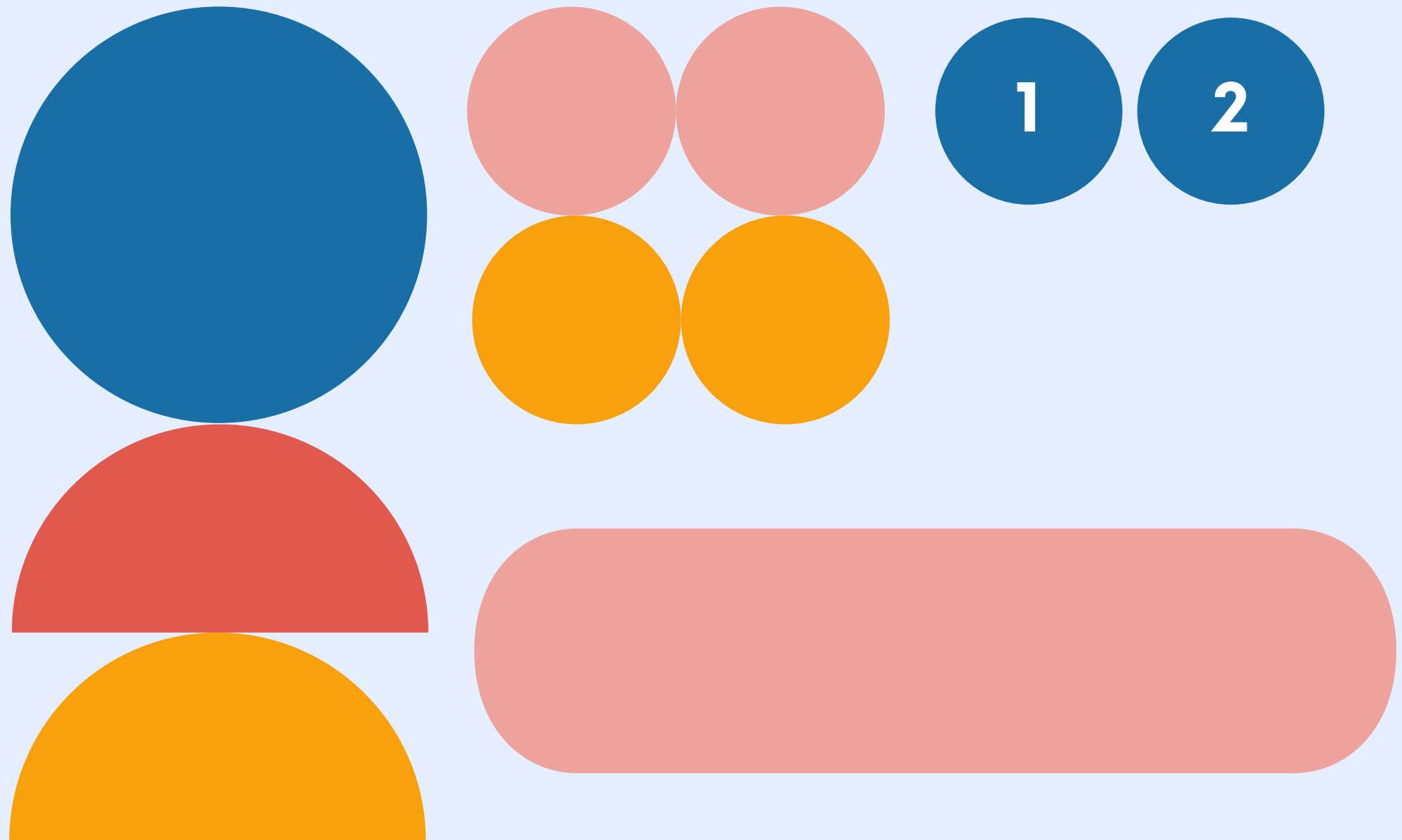
$5 \times 4 = 20$



Any Questions?



Resource Page



Use these icons and illustrations in your Canva Presentation. Happy designing! Remember to delete this page before presenting.