

Unit 13: Division

Making equal groups (I)

→ pages 26–28

- The farmer needs 4 horseboxes with 2 horses each.
 - The farmer needs 5 pens of 3 sheep.
- There are 6 groups of 3 bees.
- Children should have matched sets of counters to the descriptions as follows:
 1st set of counters (3 by 5 array) → There are 15 counters in groups of 3 or This is 15 sorted into groups of 5.
 2nd set of counters (2 by 5 array) → 10 has been put into groups of 5 or 10 is sorted into groups of 2.
 3rd set of counters (5 groups of 2) → 10 has been sorted into groups of 2.
 4th set of counters (3 by 5 array) → There are 15 counters in groups of 3 or This is 15 sorted into groups of 5.
- Children should have ticked the 1st and 2nd pictures.
- Children need to have drawn the same number of counters in the two grids.

The most likely answers are: There are 2 groups of 6.
There are 6 groups of 2.

However, alternative answers are possible: There are 4 groups of 3. There are 3 groups of 4. There are 12 groups of 1. There is 1 group of 12.

Reflect

Jed can make 5 more chains of 3 paperclips, i.e. there will be 6 chains altogether where each chain is made of 3 paperclips.

Making equal groups (2)

→ pages 29–31

- Children should have grouped the shoes in 2s and continued jumps of 2 backwards along the number line.
There are 5 groups of 2 shoes.
- Children should have grouped the counters in 5s and drawn jumps of 5, from 15 to 0, along the number line.
There are 3 groups of 5. Luke fills 3 pots.
 - Children should have grouped the counters in 5s and drawn jumps of 5, from 25 to 0, along the number line.
There are 5 groups of 5. Cora fills 5 trays.

- Children should have drawn jumps of 10, from 40 to 0, along the number line.
Ella has 4 groups of 10 sticks. She can make 4 flower patterns.
- Children should have completed the table as follows:

4	2 jumps of 2 on number line, from 4 back to 0. 2 groups of 2
8	4 jumps of 2 on number line, from 8 back to 0. 4 groups of 2
10	5 jumps of 2 on number line, from 10 back to 0. 5 groups of 2

Children should have noticed the pattern that the number of people is double the number of groups of 2.

Reflect

There are 3 groups of 10 pens. Children could have explained different methods for finding the answer, e.g.

I drew 30 dots and then put a loop around a group of 10 at a time. There were 3 groups.

I counted back in 10s along a number line from 30 to 0. There were three 10s.

I knew that three 10s made 30.

Sharing equally (I)

→ pages 32–34

- Children should have drawn 2 cars in each set.
There are 6 cars. They are shared between 3 children.
Each child gets 2 cars.
- There are 15 dinosaurs. They are shared between 5 children. Each child gets 3 dinosaurs.
- 18 shared between 2 is 9. Each child gets 9 cards.
 - A is correct. Children could have explained their reasoning in different ways, e.g.
 18 shared between 3 is 6, and 6 is less than 9 so each child will get fewer than before.
 If the number of cards is the same but they have to be shared between more children, each child must get fewer.
- 12, 16 (either way round)

Reflect

Children could explain different approaches, e.g.

He could get 20 counters and put one counter next to each cake and keep doing this until all of the counters are used up.

He could get arrange 20 counters in an array that has 4 rows. The number of counters in each row is the number of cherries that should go on each cake.



Sharing equally (2)

→ pages 35–37

1. a) There are 2 carrots for each rabbit. There are 5 groups of 2 carrots.
b) There are 10 carrots for each rabbit. There are 2 groups of 10 carrots.
2. Each tortoise gets 3 leaves. There are 4 groups of 3 leaves.
3. a) Children should match the top array (4 groups of 5) to the bottom picture (4 children).
Children should match the bottom array (10 groups of 2) to the top picture (10 children).
b) 20 shared between 4 is 5 for each person.
20 shared between 10 is 2 for each person.
4. Eve has shared between 3 equally. Children could have explained the mistakes in different ways, e.g.
Ben has shared his sweets into more than 3 groups.
Sara has organised her sweets into 3 groups but they are not equal.
5. 42, 48, 54 (in any order)

Reflect

Children could explain their method in different ways, e.g.

I can share 8 cubes between 4 people equally by giving each person one cube each until all of the cubes are shared out.

I can share 8 cubes between 4 people equally by giving each person 2 cubes because I know that 4 groups of 2 can be made from 8.

Solving word problems – division

→ pages 38–40

1. Leo can fill 5 transporters.
2. Jade fills 5 rows.
3. Eva will have 6 toys on each shelf. Tom will have 3 toys of each shelf. So, Eva has more on each shelf.
4. Eva is correct because the cubes need to be sorted into 2 bags, so if Eva shares the cubes into 2 groups then one group can be put into each bag. Some children could have described a method that involves sorting the cubes into groups of 2 if, for example, they argued that then one cube from each group should be put into each bag.
5. a) There are 10 groups.
b) There are 2 counters in each group.

Reflect

The following questions involve making equal groups: 1, 2. The following questions involve equal sharing: 3, 4, 5.

Children could have identified different questions as the hardest.

End of unit check

→ pages 41–42

My journal

The girls are correct because they have 6 teddy bears each while the boys only have 5.

Power puzzle

Children should recognise that they need to first find out the total number of dots and then consider what equal groups they can make using that number.