Year 2 Maths Multiplication and Division

Learning from Home Activity Booklet

Year 2 Programme of Study – Multiplication and Division

Statutory requirements	Activity Sheet	Page Number	Notes
Recall and use multiplication and division facts for the 2, 5 and 10 times tables, including recognising odd and even numbers.	Weekly Time Challenge	2	
Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs.	Array for Maths!	3	
Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.	Commutativity	4	
Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.	Multiplication Division Circus Solve It!	5 6 7	
Answers			

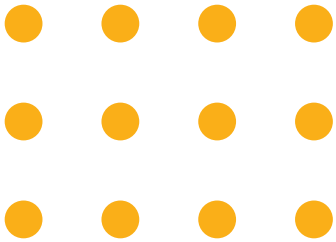
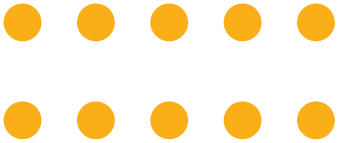
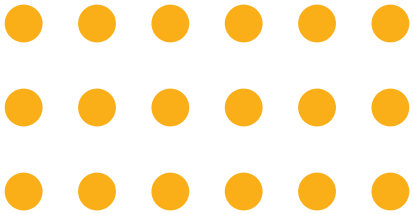
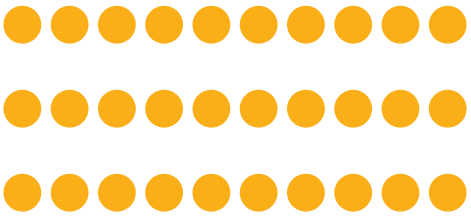
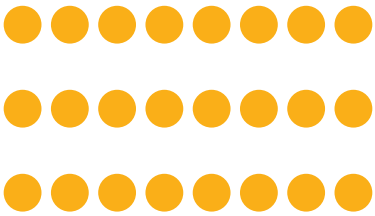
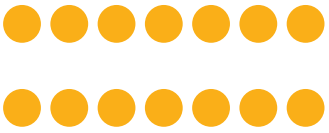
Know Your Facts

Ask your helper to time you for 60 seconds. Complete as many of the questions in the first column as you can, then mark them together. Next week, try and beat your score using the next column.

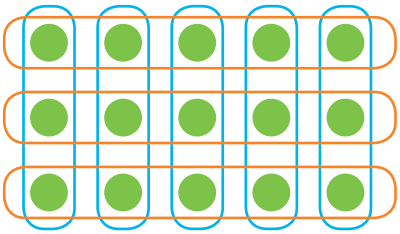
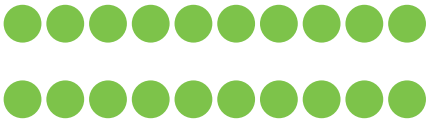
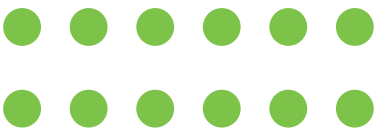
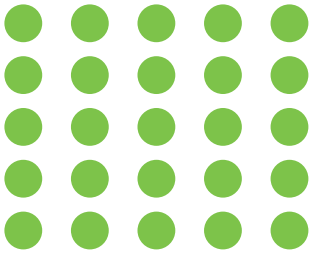
3 × 2 =	1 × 5 =	1 × 2 =	12 × 2 =	1 × 2 =
4 × 5 =	5 × 2 =	3 × 3 =	11 × 5 =	2 × 3 =
2 × 10 =	10 × 5 =	5 × 5 =	10 × 2 =	3 × 5 =
6 × 5 =	4 × 3 =	7 × 10 =	1 × 5 =	4 × 3 =
3 × 3 =	7 × 10 =	9 × 3 =	2 × 3 =	5 × 5 =
2 × 5 =	2 × 3 =	12 × 5 =	3 × 5 =	12 × 3 =
1 × 5 =	4 × 2 =	11 × 2 =	6 × 3 =	11 × 2 =
0 × 3 =	6 × 5 =	2 × 10 =	4 × 10 =	10 × 3 =
10 × 10 =	8 × 10 =	4 × 3 =	7 × 2 =	9 × 10 =
12 × 2 =	9 × 5 =	6 × 5 =	9 × 5 =	8 × 10 =
11 × 5 =	10 × 3 =	8 × 10 =	8 × 3 =	7 × 10 =
6 × 3 =	11 × 2 =	10 × 2 =	2 × 10 =	6 × 3 =
5 × 5 =	12 × 5 =	12 × 2 =	6 × 10 =	0 × 5 =
4 × 2 =	3 × 3 =	2 × 3 =	2 × 3 =	6 × 2 =
6 × 2 =	5 × 10 =	7 × 5 =	8 × 5 =	8 × 3 =
8 × 10 =	10 × 2 =	8 × 10 =	9 × 2 =	4 × 2 =
4 × 3 =	11 × 5 =	9 × 10 =	4 × 5 =	11 × 5 =
2 × 2 =	9 × 3 =	11 × 3 =	3 × 3 =	12 × 3 =
5 × 10 =	1 × 10 =	12 × 2 =	11 × 2 =	0 × 10 =
6 × 4 =	0 × 2 =	6 × 5 =	12 × 5 =	2 × 2 =

Array for Maths!

Write two multiplication sentences for each of these arrays. The first one has been done for you.

		
4 × 3 = 12		
3 × 4 = 12		
		

Write two division sentences for each of these arrays. Try using coloured pencils to group the dots.

		
15 ÷ 5 = 3		
15 ÷ 3 = 5		
		

What do you notice about the last one? Talk to your helper.

Commutativity

The commutative property of multiplication means that when two numbers are multiplied together it doesn't matter which one comes first because the product will be the same. Division does not have commutativity.

4 × 2 = 2 × _____

1 × 3 = 3 × _____

3 × 5 = 5 × _____

3 × 10 = 10 × _____

7 × 10 = 10 × _____

11 × 3 = 3 × _____

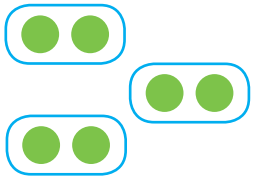
Fill in the missing numbers:

_____ × 2 = 2 × 5 **5 × 2 = _____** **2 × _____ = _____**	**_____ × 3 = 3 × 8** **3 × 8 = _____** **8 × _____ = _____**
10 × 2 = 2 × **_____ × _____ = _____** **_____ × _____ = _____**	**4 × 6 = _____ × 4** **_____ × _____ = _____** **_____ × _____ = _____**

Challenge: Ryan has 3 boxes with 5 cars in each. His friend Sam has 5 boxes with 3 cars in each. Who has the most cars?

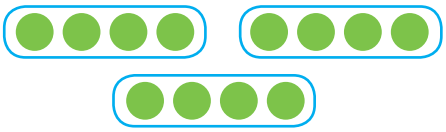
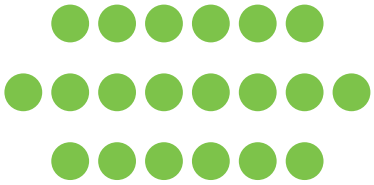
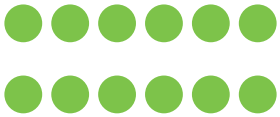
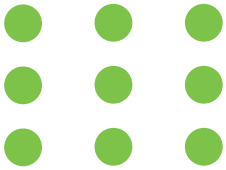
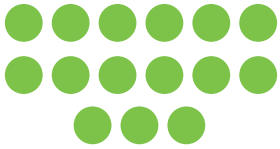
Multiplication

Complete the table. The first one is done for you.

Factors	Repeated Addition	Groups	Array	Related Calculation (commutative property)	Product
3 × 2	2+2+2			2 × 3	6
2 × 5					
3 × 10					
6 × 2					
4 × 3					
3 × 5					
2 × 10					

Division

Complete the table. The first one is done for you.

Division	Sharing	Answer	Related Multiplication Facts
12 ÷ 3		4	3 × 4 = 12 4 × 3 = 12
8 ÷ 2			
10 ÷ 5			
20 ÷ 10			
12 ÷ 2			
9 ÷ 3			
15 ÷ 5			

Fill the Gaps

Emma and James are visiting the circus. Can you work out the answers to these problems for them? Use arrays, sharing, objects, or anything else that may help you. Don't forget to look for the important information!

Each children's ticket costs £5. How much do the 2 children pay altogether?	Each section of the circus has 10 seats. If 40 people arrive, how many sections will they need?	There are 3 clowns and each clown juggles 4 balls. How many balls altogether?
There are 20 sweets in Emma's packet. If she shares them equally with James, how many sweets will they have each?	9 trapeze artists swing on 3 swings. How many trapeze artists are on each swing? 	The motorbike riders are next. There are 18 wheels altogether. How many motorbikes are there? 
The circus dancers wear feathers in their hair. There are 5 dancers and each dancer wears 3 feathers. How many feathers altogether?	There are 7 acrobats. Each acrobat does 5 tumbles. How many tumbles altogether?	At the end of the show, 10 performers take 30 bows altogether. How many bows does each performer take?

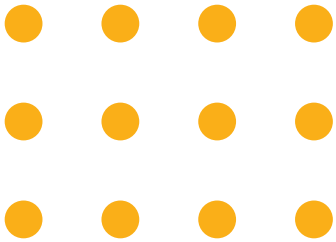
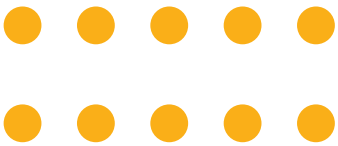
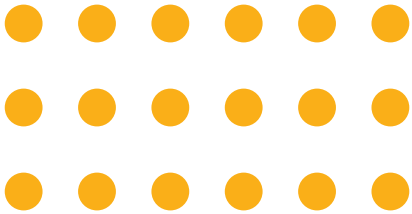
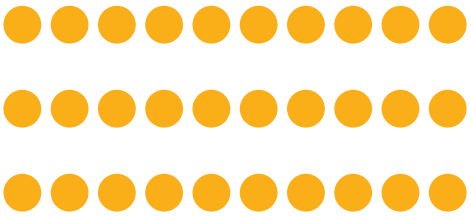
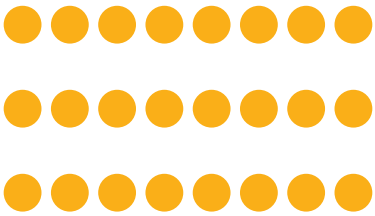
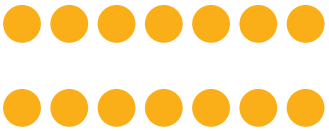
Know Your Facts **Answers**

Ask your helper to time you for 60 seconds. Complete as many of the questions in the first column as you can, then mark them together. Next week, try and beat your score using the next column.

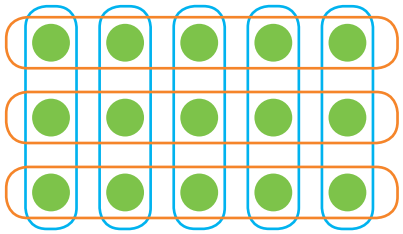
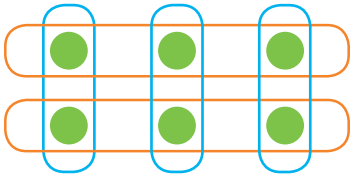
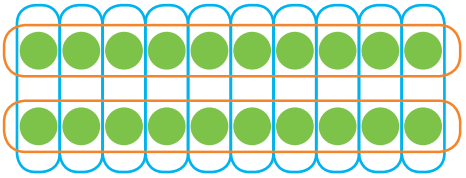
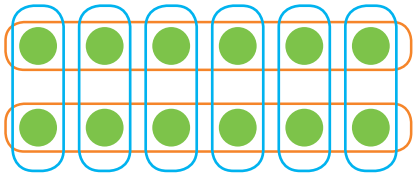
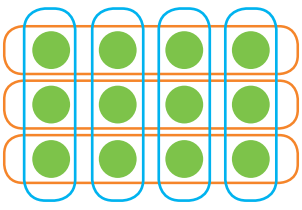
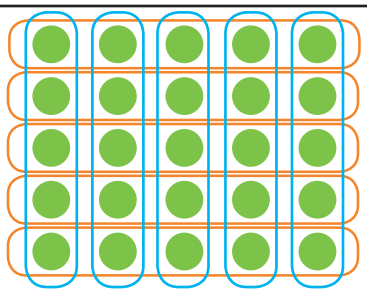
3 × 2 = 6	1 × 5 = 5	1 × 2 = 2	12 × 2 = 24	1 × 2 = 2
4 × 5 = 20	5 × 2 = 10	3 × 3 = 9	11 × 5 = 55	2 × 3 = 6
2 × 10 = 20	10 × 5 = 50	5 × 5 = 25	10 × 2 = 20	3 × 5 = 15
6 × 5 = 30	4 × 3 = 12	7 × 10 = 70	1 × 5 = 5	4 × 3 = 12
3 × 3 = 9	7 × 10 = 70	9 × 3 = 27	2 × 3 = 6	5 × 5 = 25
2 × 5 = 10	2 × 3 = 6	12 × 5 = 60	3 × 5 = 15	12 × 3 = 36
1 × 5 = 5	4 × 2 = 8	11 × 2 = 22	6 × 3 = 18	11 × 2 = 22
0 × 3 = 0	6 × 5 = 30	2 × 10 = 20	4 × 10 = 40	10 × 3 = 30
10 × 10 = 100	8 × 10 = 80	4 × 3 = 12	7 × 2 = 14	9 × 10 = 90
12 × 2 = 24	9 × 5 = 45	6 × 5 = 30	9 × 5 = 45	8 × 10 = 80
11 × 5 = 55	10 × 3 = 30	8 × 10 = 80	8 × 3 = 24	7 × 10 = 70
6 × 3 = 18	11 × 2 = 22	10 × 2 = 20	2 × 10 = 20	6 × 3 = 18
5 × 5 = 25	12 × 5 = 60	12 × 2 = 24	6 × 10 = 60	0 × 5 = 0
4 × 2 = 8	3 × 3 = 9	2 × 3 = 6	2 × 3 = 6	6 × 2 = 12
6 × 2 = 12	5 × 10 = 50	7 × 5 = 35	8 × 5 = 40	8 × 3 = 24
8 × 10 = 80	10 × 2 = 20	8 × 10 = 80	9 × 2 = 18	4 × 2 = 8
4 × 3 = 12	11 × 5 = 55	9 × 10 = 90	4 × 5 = 20	11 × 5 = 55
2 × 2 = 4	9 × 3 = 27	11 × 3 = 33	3 × 3 = 9	12 × 3 = 36
5 × 10 = 50	1 × 10 = 10	12 × 2 = 24	11 × 2 = 22	0 × 10 = 0
6 × 4 = 24	0 × 2 = 0	6 × 5 = 30	12 × 5 = 60	2 × 2 = 4

Array for Maths! **Answers**

Write two multiplication sentences for each of these arrays. The first one has been done for you.

		
4 × 3 = 12	2 × 5 = 10	3 × 6 = 18
3 × 4 = 12	5 × 2 = 10	6 × 3 = 18
		
3 × 10 = 30	8 × 3 = 24	7 × 2 = 14
10 × 3 = 30	3 × 8 = 24	2 × 7 = 14

Write two division sentences for each of these arrays. Try using coloured pencils to group the dots.

		
15 ÷ 5 = 3	6 ÷ 2 = 3	20 ÷ 2 = 10
15 ÷ 3 = 5	6 ÷ 3 = 2	20 ÷ 10 = 2
		
12 ÷ 6 = 2	12 ÷ 4 = 3	25 ÷ 5 = 5
12 ÷ 2 = 6	12 ÷ 3 = 4	

What do you notice about the last one? Talk to your helper.

Commutativity **Answers**

The commutative property of multiplication means that when two numbers are multiplied together it doesn't matter which one comes first because the product will be the same. Division does not have commutativity.

4 × 2 = 2 × 4

1 × 3 = 3 × 1

3 × 5 = 5 × 3

3 × 10 = 10 × 3

7 × 10 = 10 × 7

11 × 3 = 3 × 11

Fill in the missing numbers:

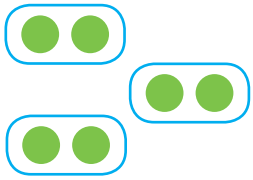
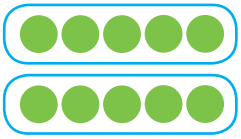
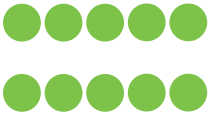
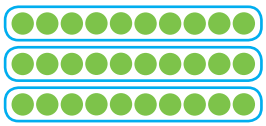
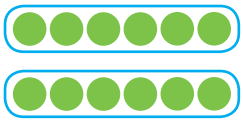
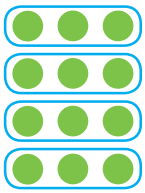
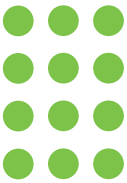
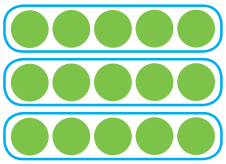
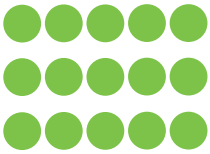
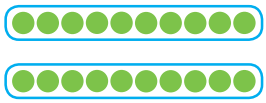
5 × 2 = 2 × 5 **5 × 2 = 10** **2 × 5 = 10**	**8 × 3 = 3 × 8** **3 × 8 = 24** **8 × 3 = 24**
10 × 2 = 2 × 10 **2 × 10 = 20** **10 × 2 = 20**	**4 × 6 = 6 × 4** **4 × 6 = 24** **6 × 4 = 24**

Challenge: Ryan has 3 boxes with 5 cars in each. His friend Sam has 5 boxes with 3 cars in each. Who has the most cars?

3 × 5 = 15 5 × 3 = 15 They both have the same number of cars.

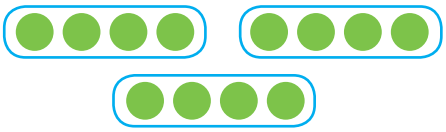
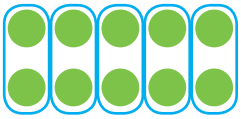
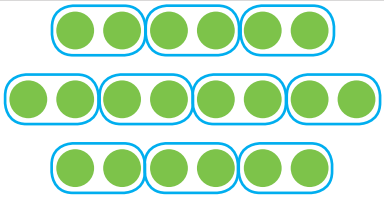
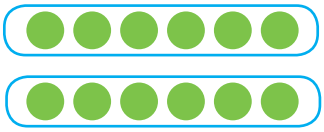
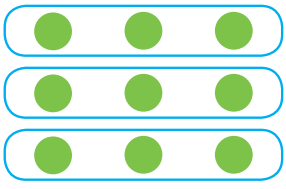
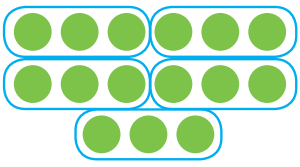
Multiplication **Answers**

Complete the table. The first one is done for you.

Factors	Repeated Addition	Groups	Array	Related Calculation (commutative property)	Product
3 × 2	2+2+2			2 × 3	6
2 × 5	5 + 5			5 × 2	10
3 × 10	10 + 10 + 10			10 × 3	30
6 × 2	6 + 6			2 × 6	12
4 × 3	3 + 3 + 3 + 3			3 × 4	12
3 × 5	5 + 5 + 5			5 × 3	15
2 × 10	10 + 10			10 × 2	20

Division **Answers**

Complete the table. The first one is done for you.

Division	Sharing	Answer	Related Multiplication Facts
12 ÷ 3		4	3 × 4 = 12 4 × 3 = 12
8 ÷ 2		4	4 × 2 = 8 2 × 4 = 8
10 ÷ 5		2	5 × 2 = 10 2 × 5 = 10
20 ÷ 10		2	10 × 2 = 20 2 × 10 = 20
12 ÷ 2		6	6 × 2 = 12 2 × 6 = 12
9 ÷ 3		3	3 × 3 = 9
15 ÷ 5		3	5 × 3 = 15 3 × 5 = 15

Fill the Gaps **Answers**

Emma and James are visiting the circus. Can you work out the answers to these problems for them? Use arrays, sharing, objects, or anything else that may help you. Don't forget to look for the important information!

Each children's ticket costs £5. How much do the 2 children pay altogether? £10	Each section of the circus has 10 seats. If 40 people arrive, how many sections will they need? 4 sections	There are 3 clowns and each clown juggles 4 balls. How many balls altogether? 12 balls
There are 20 sweets in Emma's packet. If she shares them equally with James, how many sweets will they have each? 10 sweets	9 trapeze artists swing on 3 swings. How many trapeze artists are on each swing?  3 trapeze artists	The motorbike riders are next. There are 18 wheels altogether. How many motorbikes are there?  9 motorbikes
The circus dancers wear feathers in their hair. There are 5 dancers and each dancer wears 3 feathers. How many feathers altogether? 15 feathers	There are 7 acrobats. Each acrobat does 5 tumbles. How many tumbles altogether? 35 tumbles	At the end of the show, 10 performers take 30 bows altogether. How many bows does each performer take? 3 bows