

Reasoning and Problem Solving

Multiplication and Division – Year 2

About This Resource

This resource is aimed at Year 2 Expected and has been designed to give children the opportunity to consolidate the skills they have learned in Spring Block 1 Multiplication and Division.

The questions are based on a selection of the same ‘small steps’ that are addressed in the block, but are presented in a different way so children can work through the pack independently and demonstrate their understanding and skills.

Small Steps

Make Equal Groups – Sharing
Make Equal Groups – Grouping
Divide by 2
Odd & Even Numbers
Divide by 5
Divide by 10

National Curriculum Objectives

Mathematics Year 2: (2C6) [Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers](#)
Mathematics Year 2: (2C7) [Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication \(×\), division \(÷\) and equals \(=\) signs](#)
Mathematics Year 2: (2C8) [Show that multiplication of two numbers can be done in any order \(commutative\) and division of one number by another cannot](#)
Mathematics Year 2: (2C9b) [Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts](#)

Did you like this resource? Don't forget to [review](#) it on our website.

Farming Fun!



Sophie's dad, Ollie and Freddie's mum, Leanne are heading off on the adventure of a life time. They have sold their houses in town, and left their jobs. Sophie and Freddie are changing schools.

They are all going to live together on a farm!



There so much to think about and lots of maths to be done!



1. Ollie has begun to plan the sheep shed which has 12 stalls. For their comfort and well-being, Ollie only wants to keep a maximum of 10 sheep per stall.



Ollie has 63 sheep to put in the sheep shed. How many sheep stalls will there be?
How many spare stalls will be left?

sheep stalls

spare stalls

2. Ollie decides to share the sheep equally between the sheep stalls. How many sheep will be in each sheep stall?



3. The spare stalls will be used for the pigs. The farm has 20 pigs. How many pigs will there be in each stall?

Hint: use the empty stalls below to help you!

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Leanne is making an order for tags to make sure the 10 free range hens are safe if they roam far and wide. The hens need a red tag on their left leg and a yellow tag on their right leg. Tags are 5p each.



4. Complete the order form to work out how much the tags will cost.

Handy Farm Supplies Order Form		
Item	Number of Animals	Cost
Red leg tags	10	
Yellow leg tags		
Total		

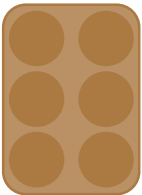
5. Leanne also needs to order storage boxes for all the eggs the hens will hopefully lay! She has researched the number of eggs they are likely to lay per day. Most sources say she can expect between 5 and 10 eggs per week from each hen. She has a choice of egg trays.

A



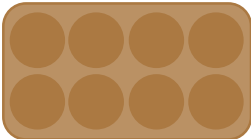
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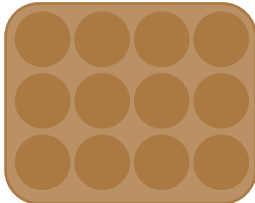
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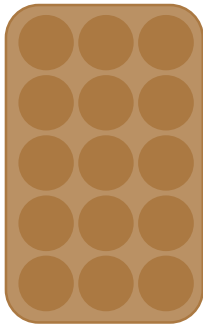
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D



☐

E



☐

Tick which tray you think Leanne should order.
Explain why you have chosen that tray.

How many trays per week will Leanne need? Remember Leanne has 10 hens.
Explain your answer.

6. Leanne is taking the eggs to the market. She hopes to sell her eggs for £2 per tray. She has brought 12 trays with her, can you help her decide which calculation she should use? Tick the correct calculation.

$$12 + 2 = \square$$

$$2 \times 12 = \square$$

$$12 \div 2 = \square$$

$$12 \times 2 = \square$$

$$12 + 12 = \square$$

Pssst! There might be more than one!!

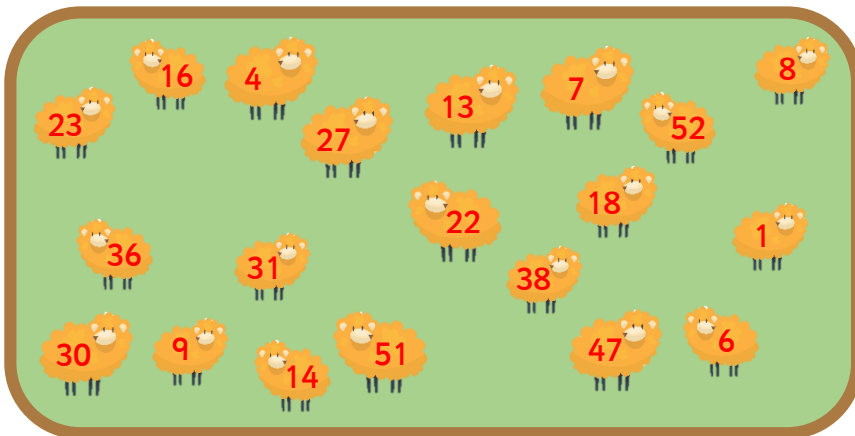


If Leanne sells all her eggs how much money will she have?

7. It's Spring time on the farm and the sheep are looking a little hot in their heavy coats! Ollie and Sophie are shearing the sheep to send the wool to market. They can only shear half the sheep today and half tomorrow. Sophie suggests they only shear the even numbered sheep today and the odd numbered sheep tomorrow.



Look at the field below. Which sheep will be shorn today?



8. Ollie needs 5 minutes to catch, shear and return each sheep to the field. He has 40 minutes before he has to head home. How many sheep can he shear in that time?

Tick which calculation Ollie could have used to work it out.

$$40 + 5 = \square$$

$$40 - 5 = \square$$

$$5 \div 40 = \square$$

$$40 \div 5 = \square$$



If Sophie shears some sheep too, how many sheep can they shear in total?

9. Last night Freddie spotted a predator from his bedroom window – a sneaky fox sniffing around the hen house! His mum has asked him to help her build a new fence around the hen house to keep them safe.



Freddie has calculated he needs 24 metres of wood for his fence. Handy Farm Supplies sell wood in 2 metre planks for £5 each.



How many planks will Freddie need? Show your calculation.

How much will the wood cost to buy? Show your calculation.

10. Uh Oh! Freddie miscalculated and he has some spare wood left over. Ollie suggests they could work together to make a new store for their wellies.

They saw and hammer, hammer and saw, until they are so proud of their new welly store. How many pairs of wellies can they keep on the pegs? Only one welly per peg!

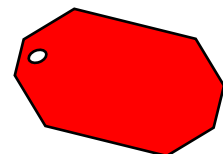


11. The corn store is under attack! A family of mice have moved in and Leanne decides to get a cat to help keep the mice under control.

Freddie and Sophie can't agree on what to call the cat so they decide to take a vote on their two favourite names by asking their new class mates. They make a tally chart to show the votes. Complete the totals and write the cat's new name on the tag.



		Total
Felix		
Lucky		



The family are grateful for your help, they love their new life on the farm and now they know who to call if they need any more help with their farmyard maths... YOU!

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1. 7 sheep stalls 5 spare stalls

2. $63 \div 7 = 9$ sheep per stall

3. $20 \div 5 = 4$ pigs per stall

4.

Handy Farm Supplies Order Form		
Item	Number of Animals	Cost
Red leg tags	10	50p
Yellow leg tags	10	50p
Total	20	£1

5. Various answers; explanation must be given, e.g. E would be the best choice because there are fifteen spaces so whether they lay 5 or 10 you will have enough space for the maximum numbers.

The most Leanne can expect is 100 eggs (10 hens x 10 eggs) so she should order 7 trays to have enough room for 100 eggs (7 x 15 spaces = 105 spaces).

6.

$12 + 2 =$	
$2 \times 12 =$	☒
$12 \div 2 =$	
$12 \times 2 =$	☒
$12 + 12 =$	☒

She would have £24 if she sold all her eggs.

7. 4, 6, 8, 14, 16, 18, 22, 30, 36, 38, 52

8. Ollie could shear 8 sheep in that time ($40 \div 5 = 8$).

$40 \div 5$

If Sophie helps, they can shear 16 sheep (2×8).

9. $24 \div 2 = 12$ planks

They will cost $12 \times £5 = £60$

10. $10 \div 2 = 5$ They can put 5 pairs of wellies on the pegs.

11.

		Total
Felix		25
Lucky		20

Children should write 'Felix' on the tag.