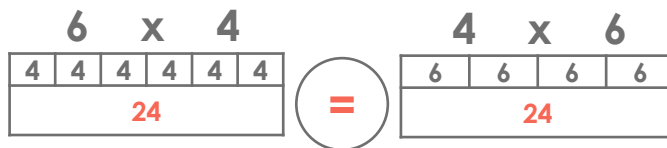


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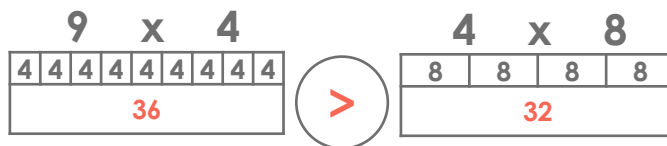
## Monday

### Maths – The 4 and the 8 Times Tables (page 2)

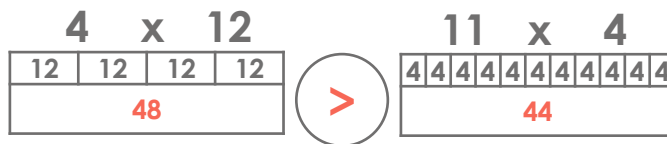
**Question 1** – This question involves multiplying numbers (up to 12) by 4 and 8 and comparing these calculations using  $>$ ,  $<$  or  $=$  based on their **products**. A **product** is the answer of multiplying two or more numbers together. For example, 30 is the product of  $6 \times 5$ . In the first row,  $6 \times 4 = 24$  and  $4 \times 6 = 24$ . The **product** of these two calculations is the same so an equals ( $=$ ) symbol should be placed in the middle.



In the second row,  $9 \times 4 = 36$  and  $4 \times 8 = 32$ . 36 is greater than 32 so the greater than symbol ( $>$ ) should be placed in the middle. This shows that 36 is more than 32.

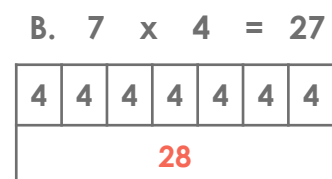
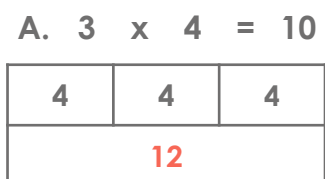


In the third row,  $4 \times 12 = 48$  and  $11 \times 4 = 44$ . 48 is greater than 44 so the greater than symbol ( $>$ ) should be placed in the middle. This shows that 48 is more than 44.



**Question 2** – This question involves using bar models to show numbers that have been multiplied by 4.

In A, the **product** of 3 and 4 is incorrect because  $3 \times 4 = 12$ , not 10. In B, the **product** of 7 and 4 is incorrect because  $7 \times 4 = 28$ , not 27.



This week's pack supports the Week 4 timetable on Classroom Secrets Kids.

## Monday

### Maths – The 4 and the 8 Times Tables continued (page 2)

**Question 3** – This question involves two children both using **related facts** from the 4 times table to calculate other 4 times table facts. We can use **related facts** to help us quickly find the answer to calculations. For example, if we know that  $4 \times 8 = 32$ , we can work out that  $8 \times 8 = 64$  by doubling 32. **Ryan is correct because  $4 \times 4 = 16$  and double 16 equals 32. Therefore,  $8 \times 4 = 32$ . Amelie is incorrect because  $3 \times 4 = 12$ . Half of 12 equals 6.  $6 \times 4$  does not equal 6.**

**Question 4** – This question involves using **related facts** from the 4 times table to help solve calculations from the 8 times table. As 4 is double 8, we can double 12 to find the answer to  $3 \times 8$ . Double 12 equals 24 so  $3 \times 8 = 24$ . Therefore 24 must be the number that is missing in both diagrams below.

$3 \times 4 = 12$		
-------------------	--	--

12		
4	4	4

$3 \times 8 = 24$		
-------------------	--	--

24		
8	8	8

**Question 5** – This question involves multiplying numbers (up to 12) by 4 and 8 and comparing these calculations using  $>$ ,  $<$  or  $=$  based on their **products**.

In A,  $12 \times 4 = 48$  and the arrays show  $6 \times 8$  which also equals 48. The **product** of these two calculations is the same so an equals ( $=$ ) symbol should be placed in the middle.

$12 \times 4$	
---------------	--

=
---

••••	••••
••••	••••
••••	••••
••••	••••

In B, 7 equal groups of 4 counters = 28 and  $7 \times 8 = 56$ . 28 is smaller than 56 so a less than symbol ( $<$ ) should be placed in the middle.

••	••	••
••	••	••

<
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$7 \times 8$	
--------------	--

In C,  $5 \times 8 = 40$  and 12 equal groups of number pieces with two holes equals 24. 40 is more than 24 so a greater than symbol ( $>$ ) should be placed in the middle.

$5 \times 8$	
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>
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••	••	••	••
••	••	••	••
••	••	••	••

This week's pack supports the Week 4 timetable on Classroom Secrets Kids.

## Monday

**Maths – The 4 and the 8 Times Tables continued** (page 2)

**Question 6** – This question involves using **related facts** from the 8 times table to calculate other facts in the 8 times table. Sarah has partitioned 6 into 5 and 1 which makes the calculation easier to work out. **Sarah is correct because  $1 \times 8 = 8$  and  $5 \times 8 = 40$ .  $8 + 40 = 48$  which is the same as  $6 \times 8 = 48$ .**

This week's pack supports the Week 4 timetable on Classroom Secrets Kids.

## Tuesday

### Maths – Multiply 2 Digits by 1 Digit (page 4)

**Question 1** – This question shows two different methods of solving  $21 \times 4$ . One method uses repeated addition and the other method uses the **formal written method** of column multiplication. The **formal written method** is also known as the column method. Starting with the ones column, each digit is multiplied by the number on the second row (the multiplier) in turn, and the answer is recorded directly beneath that digit. It is important to note that both methods arrive at the same answer.

$$\boxed{21} + \boxed{21} + \boxed{21} + \boxed{21} = \boxed{84}$$

		2	1
x			4
		8	4

**Question 2** – This question involves looking at the **place value chart** and identifying what 2-digit number has been used in the top row. A **place value chart** is used to identify the value of the digits that make up a number. The chart is broken up into columns which represent 'ones', 'tens', 'hundreds', 'thousands', 'ten thousands', and so on.

There are four tens counters in the tens column and two ones counters in the ones column. 4 tens and 2 ones make the number 42. The digits '4' and '2' can be placed in the tens and ones column in the **formal written method**.

Three more identical rows of four tens and two ones counters need to be drawn into the **place value chart** as shown below. This chart can then be used to find the answer by counting up the total number of counters in the tens column and the total number of ones counters in the ones column and adding these **values** together. **Values** can refer to how much something is worth, or a number that is the result of a calculation.

When completed, both diagrams should show that  $42 \times 4 = 168$ .

		4	2
x			4
	1	6	8

Tens				Ones	
10	10	10	10	1	1
10	10	10	10	1	1
10	10	10	10	1	1
10	10	10	10	1	1







This week's pack supports the Week 4 timetable on Classroom Secrets Kids.

## Tuesday

Maths – Multiply 2 Digits by 1 Digit continued (page 4)

**Question 3** – This question involves interpreting the total **value** of **Base 10** used in the **place value chart**. **Base 10** refers to a physical resource which represents numbers. The small cubes represent 'ones' and the rods represent 'tens' (they are made up of 10 small cubes). Start by counting how many tens have been used altogether and then count the total number of ones. There are 6 tens which equals 60 and 24 ones. Add these together to find the final answer.  $60 + 24 = 84$ , so this calculation is true.

For the **formal written method**, (explained on page 6) 28 is multiplied by 3. In the ones column  $8 \times 3 = 24$ . As 24 is greater than 9 and therefore has 2 digits, the tens in the answer is transferred to the column to the left, and added after the next multiplication. This is known as an **exchange**.

Tens	Ones
	
	
	

	2	8
x		3
	8	4
	2	

**Question 4** – This problem-solving question involves finding out which two numbers, when multiplied together have a **product** (see definition on page 2) of 96.

	3	2
x		3
	9	6

This week's pack supports the Week 4 timetable on Classroom Secrets Kids.

## Tuesday

Maths – Multiply 2 Digits by 1 Digit continued (page 4)

**Question 5** – This question involves creating two separate multiplications using the **formal written method**, which have answers that are as close to 300 as possible. This type of question usually involves using **trial and error** where children explore a range of possible 2-digit x 1-digit multiplications and see which gives an answer that is closest to the target number. **Trial and error** is the name given to a problem-solving method which involves trying various calculations and seeing their results. These results directly help in reaching the final answer.

The closest answer Zara could reach using her digits is **272**. For this, her multiplication would be  $34 \times 8 = 272$ . This is only 28 away from the target number.

		3	4
x			8
	2	7	2
		3	

The closest answer Alfie could reach using his digits is **280**. For this, his multiplication would be  $35 \times 8 = 280$ . This is only 20 away from the target number.

		3	5
x			8
	2	8	0
		4	

**Question 6** – This question involves looking at both multiplication methods that Mia has used. If she had completed them both correctly, they should have the same answer. In this question, they are not the same as in the **place value chart**, there are 16 tens counters which equals 160 and 28 ones counters.  $160 + 28 = 188$  which is not the same as Mia's other answer of 168. Her chart correctly shows  $47 \times 4$  because four tens counters and seven ones counters are in each row and there are four rows in total so the mistake must be within the **formal written method**.

Starting at the ones column,  $7 \times 4 = 28$ . Mia has correctly written the digit '8' in the ones and has **exchanged** twenty ones for 2 tens. Moving onto the tens column,  $4 \text{ tens} \times 4 = 160 + 2 \text{ tens} (20) = 180$ . Mia has forgotten to add the 2 tens that she exchanged so the answer 168 is incorrect. Both methods should show that  $47 \times 7 = 188$ . To correct her mistake, Mia should change the '6' in the tens column to an '8'.

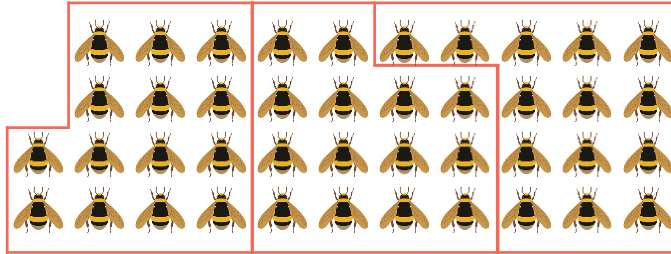
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## Wednesday

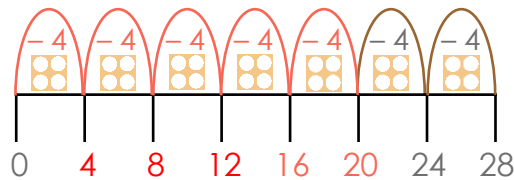
Maths – Divide 2 Digits by 1 Digit (page 6)

**Question 1** – This question involves sharing all the bees into three equal groups. Once you have done this, you will find the answer by counting the number of bees in one group. If the groups are equal, each group should have the same number of bees.

Each group should have 14 bees, as shown below.



**Question 2** – This question involves using repeated subtraction on a **number line** to calculate  $28 \div 4$ . A **number line** is a horizontal, straight line which has numbers placed at equal points. Start by working from the right-hand side and keep deducting four less from the number shown until you reach the number shown on the left-hand side of the **number line** which, in this case, is 0 ( $28 - 4 = 24$ ,  $24 - 4 = 20$ ,  $20 - 4 = 16$ ,  $16 - 4 = 12$ ,  $12 - 4 = 8$ ,  $8 - 4 = 4$  and  $4 - 4 = 0$ ). Finally, count the number of jumps that have been made on the **number line** to find the answer.



As you can see above, 7 jumps have been made on the number line so  $28 \div 4 = 7$ .

**Question 3** – This question involves using information from the **number line** to complete the division that is being shown. Divisions usually begin with the number found on the right-hand side of the number line which, in this case, is 59. Place this number in the first empty box. Next, 5 is being subtracted in each jump on the **number line** which means that the number is being divided by 5. This number should then be placed in the second empty box. To find the answer, count the number of complete jumps on the **number line**. In this case, 11 full jumps have been completed. Record this number in the third box.

The final step is to check if there is a **remainder**. A **remainder** is the number that is left over when dividing. For example  $12 \div 5 = 2 \text{ r } 2$ . To do this, count back from the last marked jump to 0 and see how much is left over. Here, the last jump from '0' is '4', therefore 4 is left over so this division has a remainder of 4. This number should be placed in the final empty box. Therefore,  $59 \div 5 = 11 \text{ r } 4$ .

$$\boxed{59} \div \boxed{5} = \boxed{11} \text{ r } \boxed{4}$$

This week's pack supports the Week 4 timetable on Classroom Secrets Kids.

## Wednesday

### Maths – Divide 2 Digits by 1 Digit continued (page 6)

**Question 4** – This question involves identifying which division is being displayed on the **place value chart** (see definition on page 6). First, start by counting all the tens counters in the tens column. Here, there are 5 tens counters which equals 50. Next, count all the ones counters that are inside and outside of the **place value chart**. In this case, there are 24 ones counters. Now, add these **values** (see definition on page 6) together.  $50 + 24 = 74$  which is the division's starting number. Next, count how many equal rows the chart contains. Here, there are 5 equal rows so  $74$  is being divided by 5. Then, focus on one row only and count how many tens and ones there are. Each row should have exactly the same amount of counters.

In this **place value chart**, each row has one tens counter and four ones counters.  $10 + 4 = 14$ . We cannot ignore the counters that have been placed outside the chart as these make up the **remainder**. There are 4 ones counters outside of the chart so the answer to  $74 \div 5 = 14 \text{ r } 4$ .

**Question 5** – This question involves finding out which method correctly shows  $26 \div 3$ .

In Diagram A, a **number line** has been used. The starting number, at the right-hand side, is 26 and 3 is being subtracted in each jump. There are 5 jumps in total and between 2 and 0, there is 2 left over. However, **the numbers along the bottom of the number line have not been placed at equal intervals** which means that this **number line** is showing an incorrect number of jumps.

Diagram B uses a **place value chart** and includes 26 ones counters in total. These counters have been shared between three equal rows. There are 8 counters in each row of the **place value chart**. There are also two ones counters outside the chart. This diagram correctly shows that  $26 \div 3 = 8 \text{ r } 2$ .

**Question 6** – This reasoning question involves extracting information from a **place value chart**. First, count how many ones counters have been used altogether. In this case, 34 ones counters have been used. This implies that **the statement is incorrect because the counters in this chart have been shared equally between 4 rows and 2 counters are left over**.

Tens	Ones
	1 1 1 1 1 1 1 1
	1 1 1 1 1 1 1 1
	1 1 1 1 1 1 1 1
	1 1 1 1 1 1 1 1

① If there were 32 pencils, two counters would have to be removed which would mean that there would be none left over because  $32 \div 4$  has no remainder.



This week's pack supports the Week 4 timetable on Classroom Secrets Kids.

## Wednesday

Maths – Divide 2 Digits by 1 Digit continued (page 6)

**Question 7** – This problem-solving question involves investigating which division could be being shown on an incomplete **number line**. First, we must work out the value of the jumps shown on the **number line**. The difference between 45 and 37 is 8, the difference between 37 and 29 is 8, therefore the jumps are decreasing by 8 on the **number line**. Now we know that each jump decreases by 8, we can write '8' in the first empty box. We can complete the number line by subtracting each interval by 8, making the value on the far left-hand side 5. There are **10 jumps made on the number line** and between 5 and 0, **5 is left over** so this is the **remainder**. This **number line** shows that  $85 \div 8 = 10 \text{ r } 5$ .

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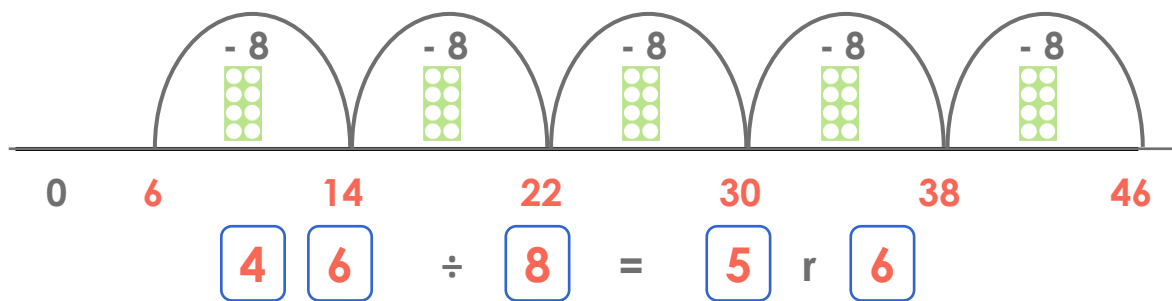
## Thursday

### Maths – Multiply and Divide 2 Digits by 1 Digit (page 8)

**Question 1** – This problem-solving question involves creating a division number sentence using a partially completed **number line** (see definition on page 10). The **number line** shows that 8 is being subtracted in each jump. **There are 5 jumps in total**. This division must include a **remainder** (see definition on page 10) because there is a gap between the last jump and 0. Given the size of the gap between the last jump and 0, it seems likely that the **remainder** is slightly smaller than 8. The closest digit to 8 on the digit cards is 6.

In a question like this, it is helpful to use the **inverse operation**. **Inverse operations** are used to check working out or to find a starting number by using the opposite operation. The inverse operations are addition and subtraction, and multiplication and division.

$8 \times 5 = 40 +$  a remainder of 6 = 46. Therefore, as shown below, a sensible division number sentence that can be shown on this number line would be:  $46 \div 8 = 5 \text{ r } 6$ .



**Question 2** – This question involves using multiplication to create different combinations of boxes that fit within the given criteria. Child C states that he had 140 books altogether so we know that whichever numbers we multiply must have a **product** (see definition on page 2) of 140 for him. Using this information, we can use **trial and error** (see definition on page 8) to find out which two-digit number (number of books) multiplied by a one-digit number (the number of boxes) equals 140.  $35 \times 4$  and  $28 \times 5$  both equal 140.

**Trial and error** can also be used to work out which boxes and how many of them were used by child B. The **product** must be an even number (ending in 0, 2, 4, 6, or 8) which is more than 100 and less than 280. In the table below, two examples of possible combinations are shown. Finally, child A says she used fewer boxes so the number of boxes she used will be fewer compared to child B and C's, however, she will still have the largest number of books in each box and the largest number of books altogether.

Child	Number of books	Number of boxes	Total number of books
A	96	3	288 (96 x 3)
	96	2	192 (96 x 2)
B	42	4	168 (42 x 4)
	36	4	144 (36 x 4)
C	35	4	140 (35 x 4)
	28	5	140 (28 x 5)

This week's pack supports the Week 4 timetable on Classroom Secrets Kids.

## Friday

### Maths – Comparing Statements (Multiplication and Division)

Click on the link to watch the learning video clip on comparing statements using multiplication and division. As the video progresses, it will give questions to answer. Pause the video and answer the questions. Underneath the video, you will find information on the questions and their answers.

<https://classroomsecrets.co.uk/free-comparing-statements-year-3-multiplication-and-division-learning-video-clip/>

### English – Revision

Click on the link below to play an interactive game that revises some of topics that you will have covered this year.

<https://kids.classroomsecrets.co.uk/resource/year-3-spring-revision-set-1/>