

Don't forget to do your daily multiplication tables practise, your fluency and reasoning questions

Support: See the knowledge organiser at the end of the document

Extension- for those who want to multiply 2 digits by 2 digits- please do send me some examples of your work

Extra: There are extra sheets towards the end of this pack to help you maintain speed and fluency. If you find the daily questions hard, you might still be able to have a good go at these!

Monday:

Multiplication by single digits - revision

Use counters or beans etc to support you where needed.

Work across each line at a time. Pay attention to what makes each line different.

Make sure you lay out your calculations carefully. Lining up matters!

Remember- you are learning the method so it doesn't matter if you can work these out more

quickly mentally. I hope you can for some of these questions- use this as a way of checking your answers!

12×4 21×3 32×2 44×2 23×3

42×4 26×3 51×3 62×4 37×3

35×6 72×5 49×8 56×6 98×7

Complete the calculation to match the image.

Hundreds	Tens	Ones				
				H	T	O
				2	4	2
			×			4
						

	H	T	O		H	T	O		H	T	O
	2	4	2		2	4	2		2	4	2
x			4	x			4	x			4
			8			6	8		9	6	8
					1				1		

$243 \times 2 \quad 441 \times 3 \quad 563 \times 3$

$435 \times 6 \quad 555 \times 7 \quad 319 \times 9$

$2345 \times 5 \quad 3425 \times 8 \quad 4567 \times 9$

$$\begin{array}{r} 1. \quad 34 \\ \times \quad 6 \\ \hline \square 04 \end{array}$$

$$\begin{array}{r} 2. \quad 2\square \\ \times \quad 5 \\ \hline 135 \end{array}$$

$$\begin{array}{r} 3. \quad \square 6 \\ \times \quad 3 \\ \hline 168 \end{array}$$

$$\begin{array}{r} 4. \quad 63 \\ \times \quad 4 \\ \hline \square 52 \end{array}$$

$$\begin{array}{r} 5. \quad 7\square \\ \times \quad 6 \\ \hline 468 \end{array}$$

$$\begin{array}{r} 6. \quad \square 9 \\ \times \quad 7 \\ \hline 273 \end{array}$$

$$\begin{array}{r} 7. \quad 5\square \\ \times \quad 6 \\ \hline \square 18 \end{array}$$

$$\begin{array}{r} 8. \quad \square 4 \\ \times \quad 7 \\ \hline 44\square \end{array}$$

$$\begin{array}{r} 9. \quad \square 5 \\ \times \quad 8 \\ \hline 7\square 0 \end{array}$$

$$\begin{array}{r} 1 \quad 2 \quad 6 \\ \times \quad \quad 3 \\ \hline 3 \quad \square \quad \square \end{array}$$

$$\begin{array}{r} 1, \quad 5 \quad 3 \quad 9 \\ \times \\ \hline 6, \quad 1 \quad 5 \quad \square \end{array}$$

$$\begin{array}{r} 2 \quad 0 \quad \square \\ \times \quad \quad 7 \\ \hline \square, \quad 4 \quad 6 \quad \square \end{array}$$

$$\begin{array}{r} 6 \quad 1 \quad \square \\ \times \quad \quad 2 \\ \hline 1, \quad \square \quad 3 \quad \square \end{array}$$

Tuesday:

Multiplication Word Problems

Draw a diagram of each problem if you need to .

Use the method above to calculate the answers to these problems:

1. Sarah has bought packets of pencils. There are 36 pencils in each packet. She has 8 packets. How many pencils has she got?
2. If eggs are sold in boxes of one dozen, how many eggs in 9 boxes?
3. A theatre has 8 rows of seats in each section. There are 36 seats in each row. There are 4 sections. How many seats are there altogether?
4. Find the product of 6 and 312.
5. My garden is 78m long and 9 m wide. What is its area?
6. 8 people each spend 63p on fruit. How much do they spend altogether?
7. Chocolate bars are sold in packets of six. There are 534 packets on the supermarket shelf- how many chocolate bars is this?

8. A dressmaker uses 1324cm of fabric in each dress. She makes 7 dresses. How much fabric does she use?
9. 125 balls of string make one net. A fisherman makes 5 nets and his friend makes 9 nets. How many balls of string do they use?
10. 6574 people attend each performance of a play. The play is performed 8 times. How many people see the play?

Wednesday:

Mixed methods reminder:

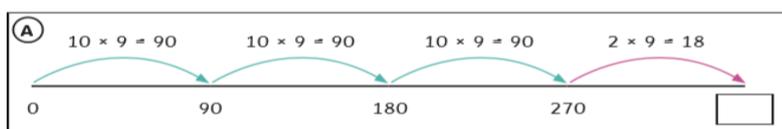


- 1) Look at the calculations in the table and decide if you would use a written method or a mental method to solve them. Explain why.

Calculation	Mental or Written Method	Explanation
$29 \times 4 = \square$	mental / written	
$64 \times 7 = \square$	mental / written	
$97 \times 5 = \square$	mental / written	

- 2) Which method is incorrect? Explain why.

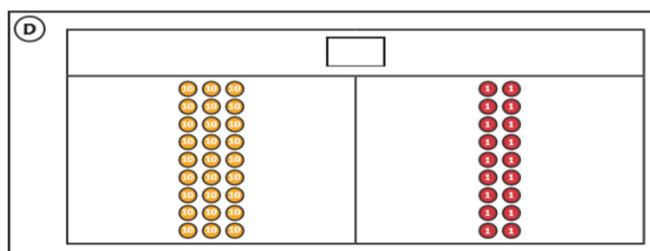
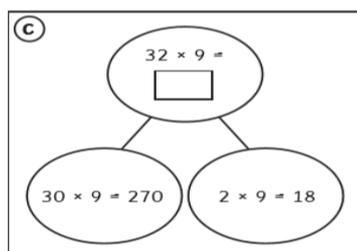
$32 \times 9 = \square$



(B)

$$10 \times 32 = 320$$

$$320 + 32 = \square$$



1) Use your knowledge of written multiplication strategies to solve the riddle.



I'm thinking of a number.

I partition it.

Next, I multiply the tens part of my number by a single digit number and it makes 320.

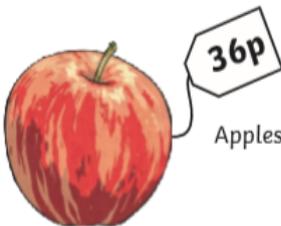
Then I multiply the ones part of my number by the same single digit number and add it to 320.

My final total is 392.

What was my original number?



2) Solve the problem.



Apples costs 36p each.



Oranges costs 28p each.

Jonah buys some apples and oranges and receives 8p change from a £5 note.

How many apples did he buy? _____

How many oranges did he buy? _____

Extra Questions:

Multiplying by 3 and 4:

1)

$$\begin{array}{r} 41 \\ \times 3 \\ \hline \end{array}$$

2)

$$\begin{array}{r} 28 \\ \times 4 \\ \hline \end{array}$$

3)

$$\begin{array}{r} 33 \\ \times 4 \\ \hline \end{array}$$

4)

$$\begin{array}{r} 342 \\ \times 3 \\ \hline \end{array}$$

5)

$$\begin{array}{r} 102 \\ \times 4 \\ \hline \end{array}$$

6)

$$\begin{array}{r} 129 \\ \times 3 \\ \hline \end{array}$$

3 times table

- $3 \times 1 = 3$
- $3 \times 2 = 6$
- $3 \times 3 = 9$
- $3 \times 4 = 12$
- $3 \times 5 = 15$
- $3 \times 6 = 18$
- $3 \times 7 = 21$
- $3 \times 8 = 24$
- $3 \times 9 = 27$
- $3 \times 10 = 30$
- $3 \times 11 = 33$
- $3 \times 12 = 36$

7) Tegan buys 4 chocolate bars. They cost 23p each. How much does she spend?

4 times table

- $4 \times 1 = 4$
- $4 \times 2 = 8$
- $4 \times 3 = 12$
- $4 \times 4 = 16$
- $4 \times 5 = 20$
- $4 \times 6 = 24$
- $4 \times 7 = 28$
- $4 \times 8 = 32$
- $4 \times 9 = 36$
- $4 \times 10 = 40$
- $4 \times 11 = 44$
- $4 \times 12 = 48$

8) How many legs do 127 sheep have?

9) There are 3 cookies in a packet. There are 165 packets in a box. How many cookies in a box?

10)

$$\begin{array}{r} 4 \square 3 \\ \times 3 \\ \hline 1269 \end{array}$$

11)

$$\begin{array}{r} 3 \square 2 \\ \times 4 \\ \hline 1328 \end{array}$$

12)

$$\begin{array}{r} \square 24 \\ \times 3 \\ \hline 27 \square 2 \end{array}$$

1)

$$\begin{array}{r} 41 \\ \times 3 \\ \hline \end{array}$$

2)

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3)

$$\begin{array}{r} 33 \\ \times 4 \\ \hline \end{array}$$

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$$\begin{array}{r} \square 24 \\ \times 3 \\ \hline 27 \square 2 \end{array}$$

Multiplying by 6 and 8

1)

$$\begin{array}{r} 21 \\ \times 8 \\ \hline \end{array}$$

2)

$$\begin{array}{r} 54 \\ \times 6 \\ \hline \end{array}$$

3)

$$\begin{array}{r} 68 \\ \times 8 \\ \hline \end{array}$$

4)

$$\begin{array}{r} 216 \\ \times 6 \\ \hline \end{array}$$

5)

$$\begin{array}{r} 307 \\ \times 8 \\ \hline \end{array}$$

6)

$$\begin{array}{r} 296 \\ \times 8 \\ \hline \end{array}$$

6 times table

- $6 \times 1 = 6$
- $6 \times 2 = 12$
- $6 \times 3 = 18$
- $6 \times 4 = 24$
- $6 \times 5 = 30$
- $6 \times 6 = 36$
- $6 \times 7 = 42$
- $6 \times 8 = 48$
- $6 \times 9 = 54$
- $6 \times 10 = 60$
- $6 \times 11 = 66$
- $6 \times 12 = 72$

7) Pens cost 79p each. Sophia buys 8. How much does she pay?

8) There are 8 cookies in a packet. There are 235 packets in a box. How many cookies in a box?

8 times table

- $8 \times 1 = 8$
- $8 \times 2 = 16$
- $8 \times 3 = 24$
- $8 \times 4 = 32$
- $8 \times 5 = 40$
- $8 \times 6 = 48$
- $8 \times 7 = 56$
- $8 \times 8 = 64$
- $8 \times 9 = 72$
- $8 \times 10 = 80$
- $8 \times 11 = 88$
- $8 \times 12 = 96$

9) A zoo has 309 visitors in a day. They each pay £6. How much money does the zoo make?

10)

$$\begin{array}{r} 125 \\ \times \quad \square \\ \hline 750 \end{array}$$

11)

$$\begin{array}{r} 3\square 2 \\ \times 8 \\ \hline 2496 \end{array}$$

12)

$$\begin{array}{r} \square 34 \\ \times 6 \\ \hline 20\square 4 \end{array}$$

1)

$$\begin{array}{r} 21 \\ \times 8 \\ \hline \\ \hline \end{array}$$

2)

$$\begin{array}{r} 54 \\ \times 6 \\ \hline \\ \hline \end{array}$$

3)

$$\begin{array}{r} 68 \\ \times 8 \\ \hline \\ \hline \end{array}$$

4)

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12)

$$\begin{array}{r} \square 34 \\ \times \square 6 \\ \hline 20\square 4 \\ \hline \end{array}$$

Multiplying by 7 and 9:

1)

$$\begin{array}{r} 41 \\ \times 7 \\ \hline \end{array}$$

2)

$$\begin{array}{r} 28 \\ \times 9 \\ \hline \end{array}$$

3)

$$\begin{array}{r} 33 \\ \times 9 \\ \hline \end{array}$$

4)

$$\begin{array}{r} 342 \\ \times 7 \\ \hline \end{array}$$

5)

$$\begin{array}{r} 802 \\ \times 7 \\ \hline \end{array}$$

6)

$$\begin{array}{r} 189 \\ \times 9 \\ \hline \end{array}$$

7 times table

$7 \times 1 = 7$

$7 \times 2 = 14$

$7 \times 3 = 21$

$7 \times 4 = 28$

$7 \times 5 = 35$

$7 \times 6 = 42$

$7 \times 7 = 49$

$7 \times 8 = 56$

$7 \times 9 = 63$

$7 \times 10 = 70$

$7 \times 11 = 77$

$7 \times 12 = 84$

7) Zac's dog eats 750g of dog food a day. How much does she eat in a week?

9 times table

$9 \times 1 = 9$

$9 \times 2 = 18$

$9 \times 3 = 27$

$9 \times 4 = 36$

$9 \times 5 = 45$

$9 \times 6 = 54$

$9 \times 7 = 63$

$9 \times 8 = 72$

$9 \times 9 = 81$

$9 \times 10 = 90$

$9 \times 11 = 99$

$9 \times 12 = 108$

8) Sweets weigh 9g each. How much do 250 sweets weigh?

9) A museum has 907 visitors in a day. They each pay £9. How much money does the museum make?

10)

$$\begin{array}{r} 255 \\ \times \quad \square \\ \hline 1785 \end{array}$$

11)

$$\begin{array}{r} 3\square 2 \\ \times \quad 9 \\ \hline 3168 \end{array}$$

12)

$$\begin{array}{r} \square 34 \\ \times \quad 7 \\ \hline 30\square 8 \end{array}$$

1)

$$\begin{array}{r} 41 \\ \times 7 \\ \hline \\ \hline \end{array}$$

2)

$$\begin{array}{r} 28 \\ \times 9 \\ \hline \\ \hline \end{array}$$

3)

$$\begin{array}{r} 33 \\ \times 9 \\ \hline \\ \hline \end{array}$$

4)

$$\begin{array}{r} 342 \\ \times 7 \\ \hline \\ \hline \end{array}$$

5)

$$\begin{array}{r} 802 \\ \times 7 \\ \hline \\ \hline \end{array}$$

6)

$$\begin{array}{r} 189 \\ \times 9 \\ \hline \\ \hline \end{array}$$

7) Zac's dog eats 750g of dog food a day. How much does she eat in a week?

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11)

$$\begin{array}{r} 3\square 2 \\ \times \square 9 \\ \hline 3168 \end{array}$$

12)

$$\begin{array}{r} \square 34 \\ \times \square 7 \\ \hline 30\square 8 \end{array}$$

Multiplication and Division

Knowledge Organiser

Key Vocabulary

Multiplication and Division Facts

Use Place Value to Multiply and Divide Mentally

multiply

groups of

lots of

times

divide

share

remainder

x	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

$5 \times 1 = 5$
 $5 \div 1 = 5$

$5 \times 10 = 50$
 $50 \div 10 = 5$

$5 \times 100 = 500$
 $500 \div 100 = 5$

Factor pairs and Commutativity

Multiply Using Formal Written Methods

factor

multiple

product

20

$5 \times 4 = 20$

$4 \times 5 = 20$

The factors of 20 are 1, 2, 4, 5, 10 and 20.

The factor pairs are:

1 and 20 2 and 10 4 and 5

Th	H	T	O
	5	4	3
x			4
		1	2
	1	6	0
2	0	0	0
2	1	7	2

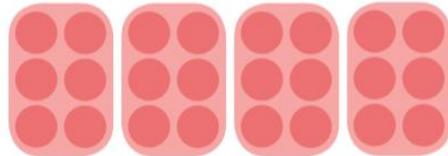
(4×3)
 (4×40)
 (4×500)

Th	H	T	O
	5	4	3
x			4
			4
2	1	7	2
	1	1	

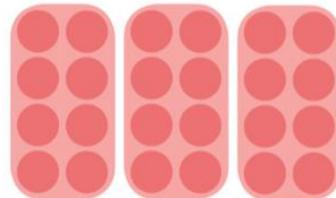
Remember to move any regrouped numbers into the next column. After the next multiplication, add the regrouped number to the answer.

Mental Calculations for Solving Problems

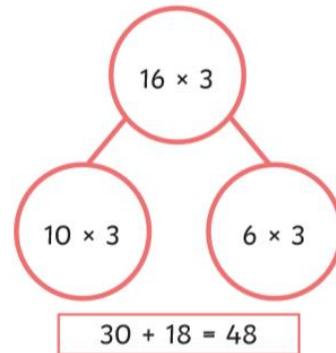
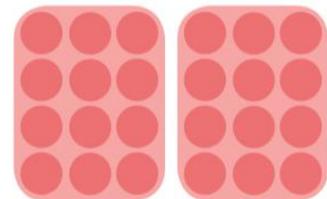
$(2 \times 3) \times 4 = 24$



$(2 \times 4) \times 3 = 24$



$(3 \times 4) \times 2 = 24$

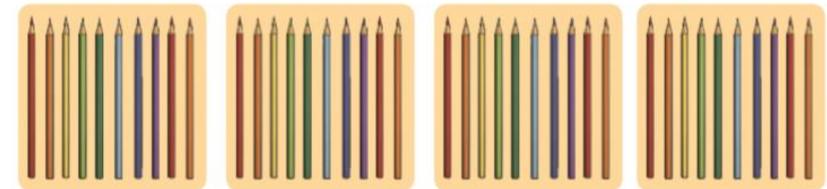


Integer Scaling Problems

10 pencils



$10 \times 4 = 40$ pencils



75g



$75g \times 2 = 150g$



Short Division with Exact Answers

There are 69 tennis balls packed in tubes of 3.

There are 23 tubes altogether.

$69 \div 3 = 23$

$$\begin{array}{r} 23 \\ 3 \overline{) 69} \end{array}$$

69		
23	23	23

