


Year 6
Maths Revision
Booklet

Addition, Subtraction,
Multiplication and Division

Date	
Subject/s	Maths
Learning Objective 	To recall and use multiplication and division facts

1) $7 \times 2 = \underline{\quad}$

2) $3 \times 8 = \underline{\quad}$

3) $4 \times 6 = \underline{\quad}$

4) $2 \times 9 = \underline{\quad}$

5) $6 \times 4 = \underline{\quad}$

6) $8 \times 4 = \underline{\quad}$

7) $7 \times 5 = \underline{\quad}$

8) $9 \times 10 = \underline{\quad}$

9) $6 \times 6 = \underline{\quad}$

1) $6 \times \underline{\quad} = 18$

2) $8 \times \underline{\quad} = 16$

3) $\underline{\quad} \times 7 = 7$

4) $\underline{\quad} \times 9 = 45$

5) $7 \times \underline{\quad} = 21$

6) $\underline{\quad} \times 6 = 36$

7) $\underline{\quad} \times 8 = 40$

8) $9 \times \underline{\quad} = 90$

9) $\underline{\quad} \times 8 = 32$

10) $\underline{\quad} \times 6 = 24$

11) $7 \times \underline{\quad} = 63$

12) $\underline{\quad} \times 6 = 0$

13) $\underline{\quad} \times 8 = 80$

14) $9 \times \underline{\quad} = 54$

15) $6 \times \underline{\quad} = 42$

16) $\underline{\quad} \times 8 = 56$

17) $\underline{\quad} \times 9 = 81$

18) $6 \times \underline{\quad} = 30$

19) $8 \times \underline{\quad} = 48$

20) $\underline{\quad} \times 9 = 18$

21) $8 \times 6 = \underline{\quad}$

22) $7 \times 9 = \underline{\quad}$

23) $6 \times 7 = \underline{\quad}$

24) $8 \times 8 = \underline{\quad}$

25) $6 \times 3 = \underline{\quad}$

26) $9 \times 6 = \underline{\quad}$

27) $7 \times 5 = \underline{\quad}$

28) $8 \times 9 = \underline{\quad}$

29) $10 \times 7 = \underline{\quad}$

21) $\underline{\quad} \times 7 = 49$

22) $8 \times \underline{\quad} = 72$

23) $\underline{\quad} \times 6 = 48$

24) $9 \times \underline{\quad} = 45$

25) $\underline{\quad} \times 7 = 63$

26) $6 \times \underline{\quad} = 36$

27) $8 \times \underline{\quad} = 64$

28) $\underline{\quad} \times 6 = 42$

29) $\underline{\quad} \times 9 = 72$

30) $7 \times \underline{\quad} = 56$

31) $\underline{\quad} \times 8 = 48$

32) $6 \times \underline{\quad} = 60$

33) $9 \times \underline{\quad} = 45$

34) $\underline{\quad} \times 8 = 72$

35) $\underline{\quad} \times 7 = 28$





36) $9 \times \underline{\quad} = 81$

37) $\underline{\quad} \times 6 = 6$

38) $\underline{\quad} \times 8 = 64$

39) $7 \times \underline{\quad} = 49$

40) $\underline{\quad} \times 9 = 54$

Date			
Subject/s	<u>Maths</u>		
Learning Objective 	To add and subtract numbers with four or more digits		
		SA 	TA 
Success Criteria 	I can use place value columns to set out calculation		
	I understand when to exchange		
	I know the bigger number goes on top when subtracting		
Support	Independent	Adult Support ()	Group Work
Pre-task: Calculate 7084 + 9118	Calculate 8753 - 1832		

Using 'My Maths'

www.mymaths.co.uk

Teacher Led

<https://www.youtube.com/watch?v=6UCV8919-ZQ>

<https://www.youtube.com/watch?v=h8wjXaecKM4>

Addition

Column Addition
(no exchange)

Check you answer H T O Start here

351
 $+ 634$

 985

Add the hundreds Add the ones

Add the tens

$$\begin{array}{r} 38 \\ 93 \\ \hline 131 \\ \hline 1 \end{array}$$

Start with the ones column and work right to left

$8 + 3 = 11$ so you exchange the 1 into the tens column.

$3 + 9 = 12$ add the one = 13

Subtraction

Column Subtraction
(no exchange)

Check you answer H T O Start here

763
 $- 341$

 422

Subtract the hundreds Subtract the ones

Subtract the tens

$$\begin{array}{r} 6 \cancel{7} 12 \\ 56 \\ \hline 16 \\ \hline \end{array}$$

Start with the ones. Work right to left

You can't do $2 - 6$ so you exchange 1 ten into the 1s.

$12 - 6 = 6$

$6 - 5 = 1$

Fluency

Find the difference.

$$\begin{array}{r} 1. \quad 5,956 \\ - 1,129 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 9,835 \\ - 7,026 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 5,018 \\ - 2,046 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 6,792 \\ - 6,677 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 5,524 \\ - 1,774 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 6,027 \\ - 4,818 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 5,031 \\ - 4,549 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 9,188 \\ - 3,921 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 6,814 \\ - 3,785 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 8,545 \\ - 6,350 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 11. \quad 9,847 \\ - 9,546 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 12. \quad 9,178 \\ - 7,311 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 13. \quad 4,582 \\ - 2,548 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 14. \quad 4,438 \\ - 1,501 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 15. \quad 5,478 \\ - 2,230 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 16. \quad 8,503 \\ - 1,538 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 17. \quad 8,996 \\ - 7,650 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 18. \quad 5,001 \\ - 4,500 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 19. \quad 9,530 \\ - 3,410 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 20. \quad 8,082 \\ - 4,688 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 21. \quad 9,743 \\ - 3,396 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 22. \quad 5,880 \\ - 2,665 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 23. \quad 9,522 \\ - 3,776 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 24. \quad 4,642 \\ - 1,868 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 25. \quad 4,804 \\ - 4,011 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 26. \quad 5,714 \\ - 5,005 \\ \hline \\ \hline \end{array}$$

+ 9138
2528

+ 5186
536

+ 3264
9359

+ 6735
2998

+ 2621
242

+ 3972
6036

+ 9327
4500

+ 786
4879

+ 3007
4271

+ 4186
5809

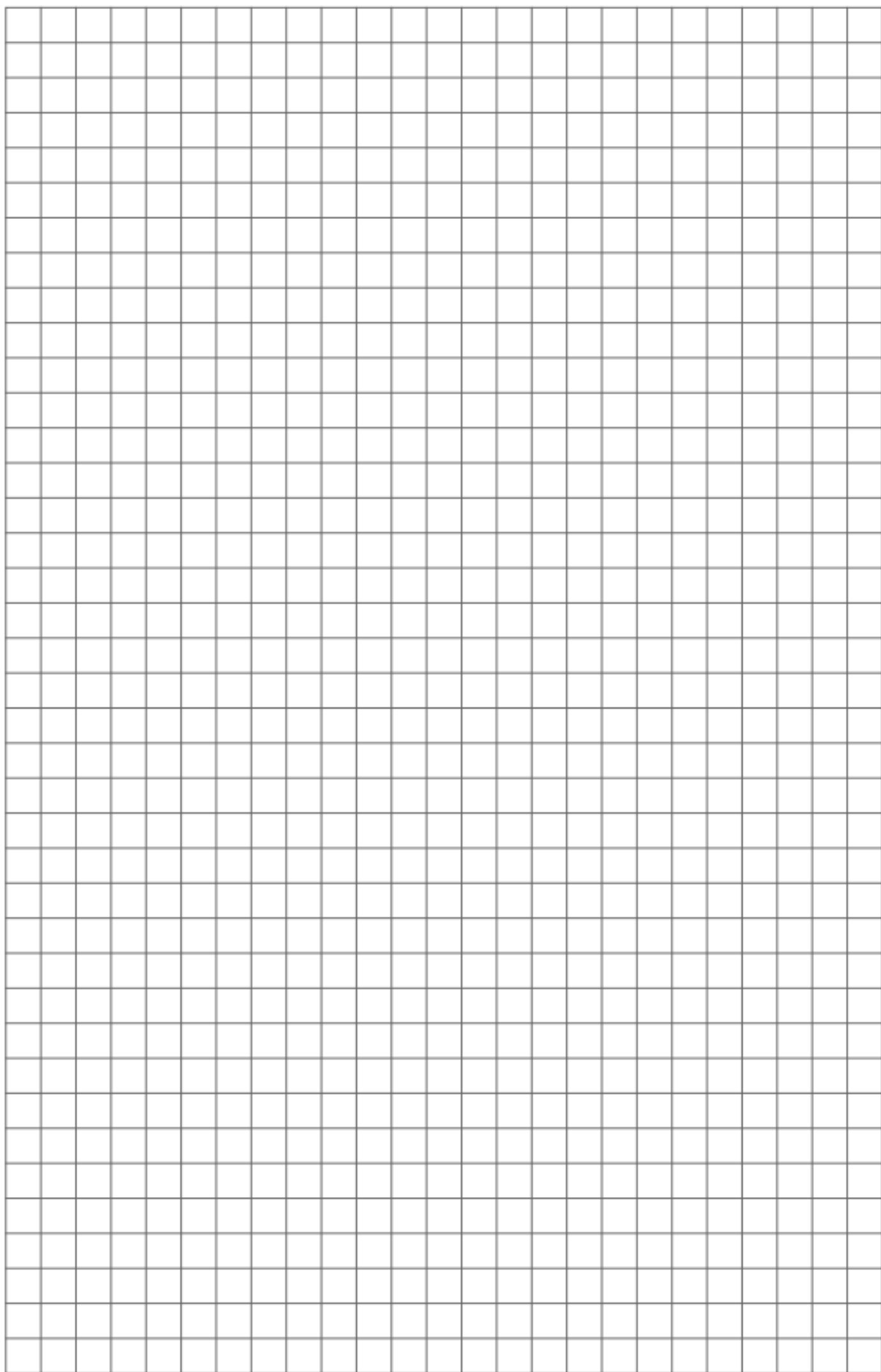
+ 7104
484

+ 1484
8273

+ 2238
5045

+ 5672
1509

+ 1524
6063



Problem Solving and Reasoning

Work out the missing numbers.

Use it!



	?	4	?	3	?
+	2	?	5	?	2
	7	8	5	2	9

Convince me!

Eva makes a 5-digit number.



Mo makes a 4-digit number.

The difference between their numbers is
3,465

What could their numbers be?

Explain it!



Rosie completes this subtraction
incorrectly.

$$\begin{array}{r} 28701 \\ - 7621 \\ \hline 21180 \end{array}$$

Explain the mistake to Rosie and correct
it for her.

Answers

Find the difference.

$$\begin{array}{r} 1. \quad 5,956 \\ - 1,129 \\ \hline 4,827 \end{array}$$

$$\begin{array}{r} 2. \quad 9,835 \\ - 7,026 \\ \hline 2,809 \end{array}$$

$$\begin{array}{r} 3. \quad 5,018 \\ - 2,046 \\ \hline 2,972 \end{array}$$

$$\begin{array}{r} 4. \quad 6,792 \\ - 6,677 \\ \hline 115 \end{array}$$

$$\begin{array}{r} 5. \quad 5,524 \\ - 1,774 \\ \hline 3,750 \end{array}$$

$$\begin{array}{r} 6. \quad 6,027 \\ - 4,818 \\ \hline 1,209 \end{array}$$

$$\begin{array}{r} 7. \quad 5,031 \\ - 4,549 \\ \hline 482 \end{array}$$

$$\begin{array}{r} 8. \quad 9,188 \\ - 3,921 \\ \hline 5,267 \end{array}$$

$$\begin{array}{r} 9. \quad 6,814 \\ - 3,785 \\ \hline 3,029 \end{array}$$

$$\begin{array}{r} 10. \quad 8,545 \\ - 6,350 \\ \hline 2,195 \end{array}$$

$$\begin{array}{r} 11. \quad 9,847 \\ - 9,546 \\ \hline 301 \end{array}$$

$$\begin{array}{r} 12. \quad 9,178 \\ - 7,311 \\ \hline 1,867 \end{array}$$

$$\begin{array}{r} 13. \quad 4,582 \\ - 2,548 \\ \hline 2,034 \end{array}$$

$$\begin{array}{r} 14. \quad 4,438 \\ - 1,501 \\ \hline 2,937 \end{array}$$

$$\begin{array}{r} 15. \quad 5,478 \\ - 2,230 \\ \hline 3,248 \end{array}$$

$$\begin{array}{r} 16. \quad 8,503 \\ - 1,538 \\ \hline 6,965 \end{array}$$

$$\begin{array}{r} 17. \quad 8,996 \\ - 7,650 \\ \hline 1,346 \end{array}$$

$$\begin{array}{r} 18. \quad 5,001 \\ - 4,500 \\ \hline 501 \end{array}$$

$$\begin{array}{r} 19. \quad 9,530 \\ - 3,410 \\ \hline 6,120 \end{array}$$

$$\begin{array}{r} 20. \quad 8,082 \\ - 4,688 \\ \hline 3,394 \end{array}$$

$$\begin{array}{r} 21. \quad 9,743 \\ - 3,396 \\ \hline 6,347 \end{array}$$

$$\begin{array}{r} 22. \quad 5,880 \\ - 2,665 \\ \hline 3,215 \end{array}$$

$$\begin{array}{r} 23. \quad 9,522 \\ - 3,776 \\ \hline 5,746 \end{array}$$

$$\begin{array}{r} 24. \quad 4,642 \\ - 1,868 \\ \hline 2,774 \end{array}$$

$$\begin{array}{r} 25. \quad 4,804 \\ - 4,011 \\ \hline 793 \end{array}$$

$$\begin{array}{r} 26. \quad 5,714 \\ - 5,005 \\ \hline 709 \end{array}$$

$$\begin{array}{r} + \quad 9138 \\ \quad 2528 \\ \hline \quad 11666 \\ \hline \end{array}$$

$$\begin{array}{r} + \quad 5186 \\ \quad 536 \\ \hline \quad 5722 \\ \hline \end{array}$$

$$\begin{array}{r} + \quad 3264 \\ \quad 9359 \\ \hline \quad 12623 \\ \hline \end{array}$$

$$\begin{array}{r} + \quad 6735 \\ \quad 2998 \\ \hline \quad 9733 \\ \hline \end{array}$$

$$\begin{array}{r} + \quad 2621 \\ \quad 242 \\ \hline \quad 2863 \\ \hline \end{array}$$

$$\begin{array}{r} + \quad 3972 \\ \quad 6036 \\ \hline \quad 10008 \\ \hline \end{array}$$

$$\begin{array}{r} + \quad 9327 \\ \quad 4500 \\ \hline \quad 13827 \\ \hline \end{array}$$

$$\begin{array}{r} + \quad 786 \\ \quad 4879 \\ \hline \quad 5665 \\ \hline \end{array}$$

$$\begin{array}{r} + \quad 3007 \\ \quad 4271 \\ \hline \quad 7278 \\ \hline \end{array}$$

$$\begin{array}{r} + \quad 4186 \\ \quad 5809 \\ \hline \quad 9995 \\ \hline \end{array}$$

$$\begin{array}{r} + \quad 7104 \\ \quad 484 \\ \hline \quad 7588 \\ \hline \end{array}$$

$$\begin{array}{r} + \quad 1484 \\ \quad 8273 \\ \hline \quad 9757 \\ \hline \end{array}$$

$$\begin{array}{r} + \quad 2238 \\ \quad 5045 \\ \hline \quad 7283 \\ \hline \end{array}$$

$$\begin{array}{r} + \quad 5672 \\ \quad 1509 \\ \hline \quad 7181 \\ \hline \end{array}$$


$$\begin{array}{r} + \quad 1524 \\ \quad 6063 \\ \hline \quad 7587 \\ \hline \end{array}$$

54937
23592





Possible answers:

9,658 and 14,023
12,654 and 8,289
5,635 and 10,000

Rosie did not write down the exchange she made when she exchanged 1 hundred for 10 tens. This means she still had 7 hundreds subtract 6 hundreds when she should have 6 hundreds subtract 6 hundreds. The correct answer is 21,080

Date	
Subject/s	Maths
Learning Objective 	To recall and use multiplication and division facts

1	9 X 7		30	6 x 9		59	9 X 4	
2	8 x 4		31	12 x 3		60	7 x 6	
3	7 x 10		32	3 x 8		61	4 x 8	
4	9 x 9		33	8 X 8		62	12 X 2	
5	6 x 2		34	6 x 8		63	3 x 6	
6	4 x 7		35	11 x 7		64	4 x 10	
7	9 X 2		36	10 x 1		65	9 x 11	
8	12 x 12		37	10 x 5		66	3 x 12	
9	5 X 9		38	3 x 5		67	3 x 10	
10	7 X 7		39	12 x 11		68	4 X 4	
11	11 x 6		40	6 x 6		69	4 x 9	
12	5 x 11		41	2 x 9		70	4 x 11	
13	4 x 6		42	12 x 7		71	6 x 5	
14	9 x 5		43	11 x 8		72	7 x 2	
15	8 X 12		44	2 x 6		73	5 x 12	
16	10 x 10		45	4 x 5		74	2 x 10	
17	7 x 3		46	4 x 9		75	4 x 12	
18	5 x 8		47	8 x 2		76	7 x 8	
19	3 x 3		48	7 x 9		77	6 x 10	
20	10 x 11		49	12 x 8		78	12 x 6	
21	11 x 2		50	9 X 4		79	7 x 12	
22	2 x 7		51	5 X 5		80	2 X 2	
23	6 x 12		52	10 x 12		81	11 x 0	
24	5 x 7		53	8 x 11		82	2 x 12	
25	10 x 6		54	4 x 3		83	2 X 4	
26	9 x 12		55	2 x 5		84	8 x 5	
27	5 x 4		56	5 x 10		85	7 x 11	
28	11 x 11		57	9 x 3		86	9 x 6	
29	7 x 4		58	8 x 10		87	10 x 11	

Date			
Subject/s	<u>Maths</u>		
Learning Objective 	To round to estimate		
		SA 	TA 
Success Criteria 	I can round numbers to make them easier to add or subtract mentally		
	I know to look at the digit next to what I am rounding to. E.g. round to the nearest 100, I look at the tens column		
	I know if the digit is 5 or higher it increases by one, it is 4 or less it stays the same		
Support	Independent	Adult Support ()	Group Work
<p>Pre-task:</p> <p>Which is best to estimate the total of 22,223 and 5,687?</p> <p style="text-align: center;">22,300 + 5,700</p> <p style="text-align: center;">22,200 + 5,700</p> <p style="text-align: center;">22,200 + 5,600</p> <p>Explain your reasoning.</p>			

Teacher Led

https://www.youtube.com/watch?v=bSemNdW9_wE

$$\begin{array}{r} 1) \quad 5788 \\ \quad - 4361 \\ \hline \end{array}$$

If I were to answer the question above, I would round to the nearest 100. I would do this because rounding to the nearest 10 would still be too difficult to work out without a method and rounding to the nearest 1000 wouldn't give me an accurate enough estimation.

5788 to the nearest 100 is 5800

4361 to the nearest 100 is 4400

$$5800 - 4400 = 1400$$

Now I can work out the exact question

$$\begin{array}{r} 1) \quad 5788 \\ \quad - 4361 \\ \hline \quad 1427 \end{array}$$

I know my answer is correct because it is close to my estimation

Fluency

$$\begin{array}{r} 1) \quad 5788 \longrightarrow 5800 \\ - 4361 \longrightarrow - 4400 \\ \hline 1400 \end{array}$$

$$\begin{array}{r} 2) \quad 3772 \longrightarrow \\ + 3559 \longrightarrow + \end{array}$$

$$\begin{array}{r} 3) \quad 8364 \longrightarrow \\ - 2849 \longrightarrow - \end{array}$$

$$\begin{array}{r} 4) \quad 6555 \longrightarrow \\ + 8376 \longrightarrow + \end{array}$$

$$\begin{array}{r} 5) \quad 9417 \longrightarrow \\ - 5723 \longrightarrow - \end{array}$$

$$\begin{array}{r} 6) \quad 5889 \longrightarrow \\ + 7119 \longrightarrow + \end{array}$$

$$\begin{array}{r} 7) \quad 3291 \longrightarrow \\ - 1718 \longrightarrow - \end{array}$$

$$\begin{array}{r} 8) \quad 4827 \longrightarrow \\ - 1949 \longrightarrow - \end{array}$$

$$\begin{array}{r} 9) \quad 9239 \longrightarrow \\ - 6839 \longrightarrow - \end{array}$$

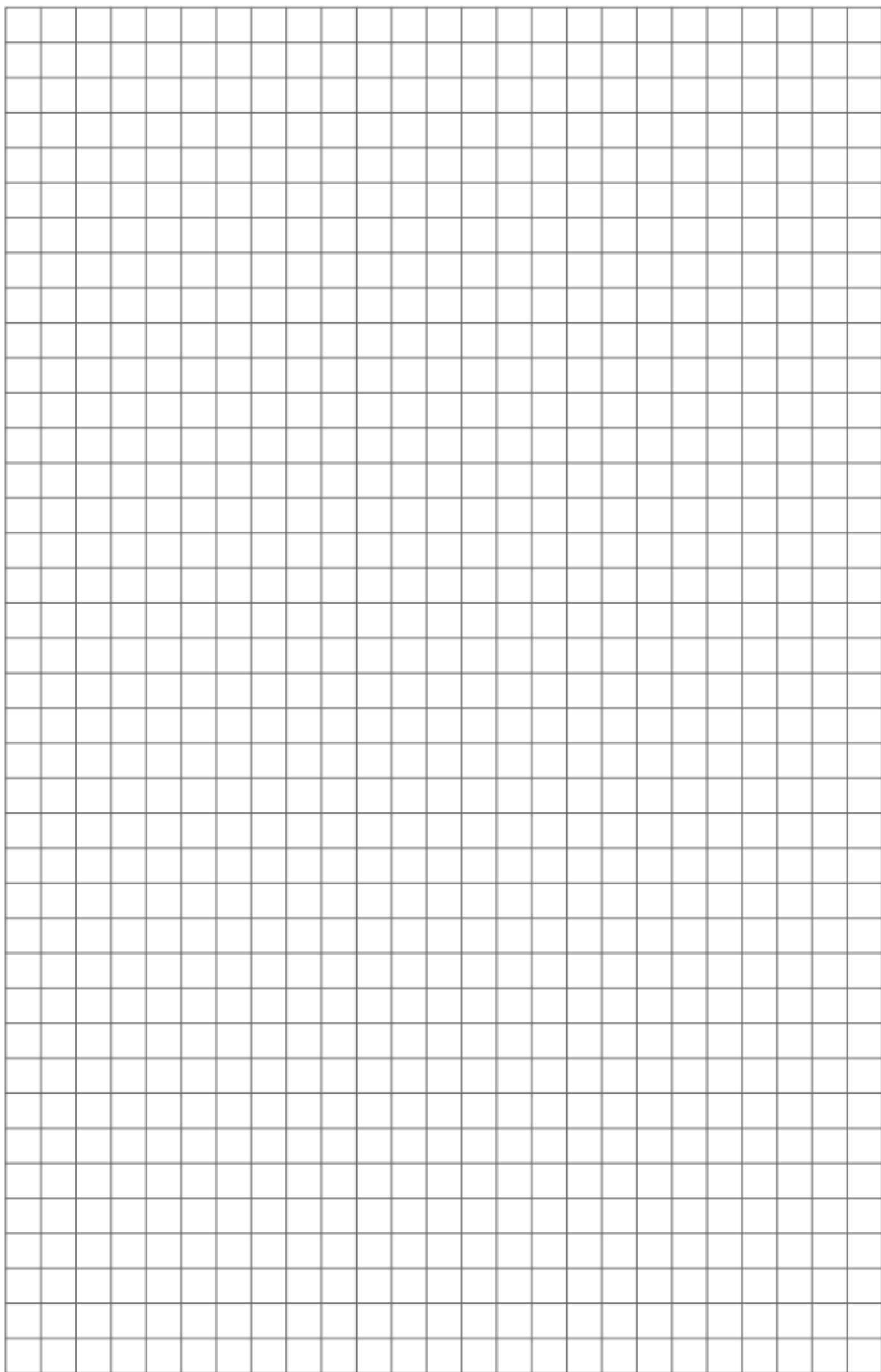
$$\begin{array}{r} 10) \quad 8764 \longrightarrow \\ + 2845 \longrightarrow + \end{array}$$

$$\begin{array}{r} 11) \quad 4169 \longrightarrow \\ + 9295 \longrightarrow + \end{array}$$

$$\begin{array}{r} 12) \quad 1378 \longrightarrow \\ + 6737 \longrightarrow + \end{array}$$

$$\begin{array}{r} 13) \quad 3414 \longrightarrow \\ - 2467 \longrightarrow - \end{array}$$

$$\begin{array}{r} 14) \quad 7856 \longrightarrow \\ + 7883 \longrightarrow + \end{array}$$



Problem Solving and Reasoning

Problem Solving and Reasoning

Explain it!



True or False?

$$49,999 - 19,999 = 50,000 - 20,000$$



Dora

I did not need to use a written method to work this out.

Can you explain why Dora's method work?

Can you think of another example where this method could be used?

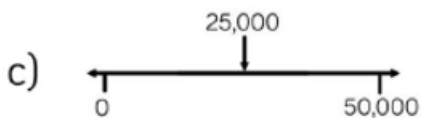
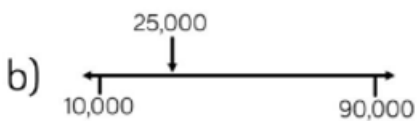
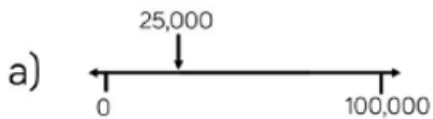
Use it!



Explain it!



Which estimate is inaccurate?



Explain how you know.

Further Challenge

Broken calculator

'The 9 and 5 keys on my calculator are broken!'

How can I use it to work out:

$$997 + 995$$

$$457 - 192$$

$$195 + 165$$

Answers

$$\begin{array}{r} 1) \quad 5788 \longrightarrow 5800 \\ - 4361 \longrightarrow - 4400 \\ \hline 1427 \qquad \qquad 1400 \end{array}$$

$$\begin{array}{r} 8) \quad 4827 \longrightarrow 4800 \\ - 1949 \longrightarrow - 1900 \\ \hline 2878 \qquad \qquad 2900 \end{array}$$

$$\begin{array}{r} 2) \quad 3772 \longrightarrow 3800 \\ + 3559 \longrightarrow + 3600 \\ \hline 7331 \qquad \qquad 7400 \end{array}$$

$$\begin{array}{r} 9) \quad 9239 \longrightarrow 9200 \\ - 6839 \longrightarrow - 6800 \\ \hline 2400 \qquad \qquad 2400 \end{array}$$

$$\begin{array}{r} 3) \quad 8364 \longrightarrow 8400 \\ - 2849 \longrightarrow - 2800 \\ \hline 5515 \qquad \qquad 5600 \end{array}$$

$$\begin{array}{r} 10) \quad 8764 \longrightarrow 8800 \\ + 2845 \longrightarrow + 2800 \\ \hline 11609 \qquad \qquad 11600 \end{array}$$

$$\begin{array}{r} 4) \quad 6555 \longrightarrow 6600 \\ + 8376 \longrightarrow + 8400 \\ \hline 14931 \qquad \qquad 15000 \end{array}$$

$$\begin{array}{r} 11) \quad 4169 \longrightarrow 4200 \\ + 9295 \longrightarrow + 9300 \\ \hline 13464 \qquad \qquad 13500 \end{array}$$

$$\begin{array}{r} 5) \quad 9417 \longrightarrow 9400 \\ - 5723 \longrightarrow - 5700 \\ \hline 3694 \qquad \qquad 3700 \end{array}$$

$$\begin{array}{r} 12) \quad 1378 \longrightarrow 1400 \\ + 6737 \longrightarrow + 6700 \\ \hline 8115 \qquad \qquad 8100 \end{array}$$

$$\begin{array}{r} 6) \quad 5889 \longrightarrow 5900 \\ + 7119 \longrightarrow + 7100 \\ \hline 13008 \qquad \qquad 13000 \end{array}$$

$$\begin{array}{r} 13) \quad 3414 \longrightarrow 3400 \\ - 2467 \longrightarrow - 2500 \\ \hline 947 \qquad \qquad 900 \end{array}$$

$$\begin{array}{r} 7) \quad 3291 \longrightarrow 3300 \\ - 1718 \longrightarrow - 1700 \\ \hline 1573 \qquad \qquad 1600 \end{array}$$


$$\begin{array}{r} 14) \quad 7856 \longrightarrow 7900 \\ + 7883 \longrightarrow + 7900 \\ \hline 15739 \qquad \qquad 15800 \end{array}$$

Answers





True

Dora has used her related number facts. Both numbers on the right have increased by 1 therefore whatever the difference is, it will remain the same as the left hand side.

B is inaccurate. The arrow is about a quarter of the way along the number line so it should be 30,000

Date	
Subject/s	Maths
Learning Objective 	To recall and use multiplication and division facts

$2 \times 2 =$	$3 \times 3 =$	$4 \times 4 =$	$11 \times 10 =$
$3 \times 5 =$	$6 \times 8 =$	$7 \times 5 =$	$10 \times 2 =$
$4 \times 6 =$	$12 \times 5 =$	$8 \times 12 =$	$3 \times 12 =$
$7 \times 4 =$	$8 \times 6 =$	$10 \times 11 =$	$4 \times 9 =$
$10 \times 10 =$	$10 \times 12 =$	$4 \times 2 =$	$5 \times 7 =$
$9 \times 3 =$	$11 \times 2 =$	$10 \times 3 =$	$9 \times 8 =$
$7 \times 2 =$	$3 \times 9 =$	$6 \times 8 =$	$10 \times 7 =$
$11 \times 3 =$	$4 \times 11 =$	$12 \times 10 =$	$7 \times 8 =$
$10 \times 5 =$	$2 \times 5 =$	$2 \times 11 =$	$4 \times 3 =$
$2 \times 4 =$	$6 \times 10 =$	$8 \times 3 =$	$12 \times 4 =$
$5 \times 6 =$	$10 \times 9 =$	$3 \times 4 =$	$5 \times 8 =$
$7 \times 10 =$	$2 \times 12 =$	$4 \times 5 =$	$8 \times 8 =$
$9 \times 2 =$	$5 \times 3 =$	$7 \times 8 =$	$12 \times 2 =$
$3 \times 11 =$	$9 \times 4 =$	$8 \times 10 =$	$5 \times 4 =$
$10 \times 4 =$	$5 \times 5 =$	$2 \times 8 =$	$9 \times 5 =$
$8 \times 5 =$	$8 \times 8 =$	$8 \times 0 =$	$8 \times 11 =$
$9 \times 8 =$	$9 \times 10 =$	$4 \times 12 =$	$2 \times 10 =$
$4 \times 10 =$	$5 \times 2 =$	$12 \times 8 =$	$4 \times 7 =$
$3 \times 2 =$	$6 \times 3 =$	$3 \times 6 =$	$11 \times 5 =$
$7 \times 3 =$	$6 \times 4 =$	$5 \times 10 =$	$2 \times 3 =$
$4 \times 8 =$	$5 \times 11 =$	$8 \times 2 =$	$8 \times 9 =$
$5 \times 9 =$	$2 \times 6 =$	$3 \times 7 =$	$8 \times 4 =$
$12 \times 8 =$	$3 \times 10 =$	$11 \times 4 =$	$11 \times 8 =$
$2 \times 9 =$	$2 \times 7 =$	$5 \times 12 =$	$12 \times 3 =$
$10 \times 8 =$	$3 \times 8 =$	$0 \times 4 =$	$8 \times 7 =$

Date			
Subject/s	<u>Maths</u>		
Learning Objective 	To use the inverse to check answers		
		SA 	TA 
Success Criteria 	I know the inverse means the opposite		
	I can use the inverse to check calculations are correct		
	I understand that addition can be done in any order but subtraction needs the bigger number first		
Support	Independent	Adult Support ()	Group Work
<p>Pre-task:</p> <p>When calculating $17,468 - 8,947$, which answer gives the corresponding addition question?</p> <div style="border: 1px solid green; border-radius: 15px; padding: 10px; width: fit-content; margin: 10px auto;"> <p>$8,947 + 8,631 = 17,468$</p> <p>$8,947 + 8,521 = 17,468$</p> <p>$8,251 + 8,947 = 17,468$</p> </div> <p>Explain why</p>			

Teacher Led

If the original sum is correct, then the answer to our inverse calculation should be the **minuend** (the larger number in the column subtraction). If it is anything other than this number, then we know the original subtraction is incorrect.

$$\begin{array}{r} \cancel{6} \cancel{0} 23 \\ - 2541 \\ \hline 3582 \end{array}$$

$$\begin{array}{r} 3582 \\ + 2541 \\ \hline 6123 \\ 11 \end{array}$$

So, the answer to the original problem is **incorrect!**

Looking at the original subtraction number sentence, can you explain to a partner where you think the mistake was made?



Column Addition

$$707 + 1818 = 2525$$

$$\begin{array}{r} 707 \\ + 1818 \\ \hline 2525 \end{array}$$

7+8=15
I need to regroup!

Let me check my result...

$$\begin{array}{r} 2525 \\ - 1818 \\ \hline 707 \end{array}$$

I have used the inverse to check my result!

Column Subtraction

$$4764 - 2830 = 1934$$

$$\begin{array}{r} 4764 \\ - 2830 \\ \hline 1934 \end{array}$$

I cannot do 7-8.
I need to regroup!

Let me check my answer...

$$\begin{array}{r} 1934 \\ + 2830 \\ \hline 4764 \end{array}$$

Fluency

Complete these questions and check your answer using column subtraction.

$$\begin{array}{r} 1 \quad 4078 \\ + 7806 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 2 \quad 3020 \\ + 7033 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 3 \quad 8389 \\ + 2094 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 4 \quad 1938 \\ + 8398 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 5 \quad 8784 \\ + 9969 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 6 \quad 8580 \\ + 1887 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 7 \quad 9771 \\ + 8489 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 8 \quad 5602 \\ + 9250 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 9 \quad 2851 \\ + 2330 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 10 \quad 8976 \\ + 7249 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 11 \quad 6942 \\ + 3220 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 12 \quad 7238 \\ + 5733 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 13 \quad 4265 \\ + 8270 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 14 \quad 8811 \\ + 2787 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 15 \quad 1899 \\ + 8179 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 16 \quad 6073 \\ + 6379 \\ \hline \\ \hline \end{array}$$

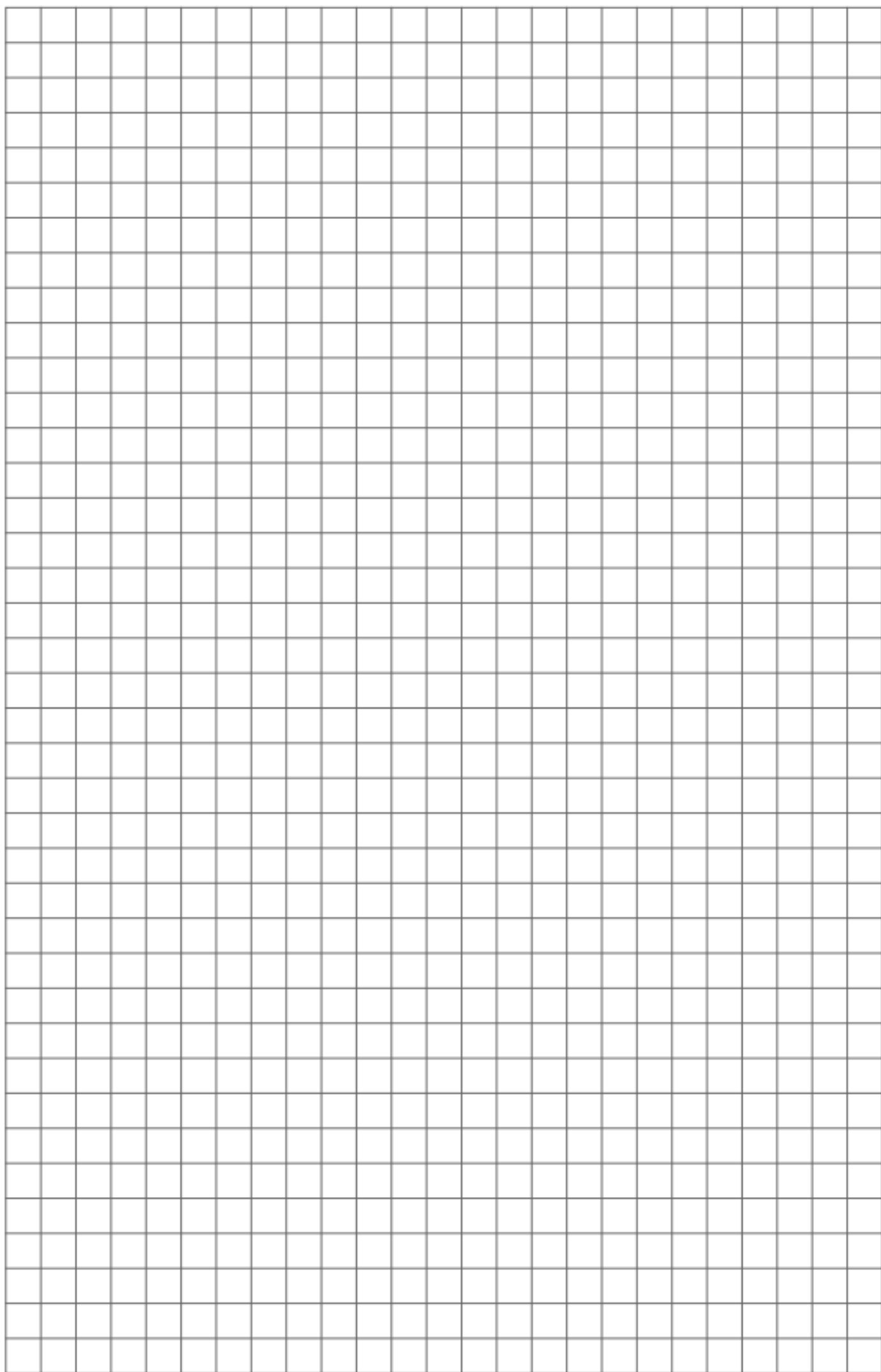
Challenge:

$$\begin{array}{r} 1 \quad 2_32 \\ + 31_2 \\ \hline \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 2 \quad 96_ \\ + 6_80 \\ \hline \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 3 \quad 25_7 \\ + _39_ \\ \hline \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 4 \quad 8_2_ \\ + _060 \\ \hline \\ \hline \\ \hline \end{array}$$



Problem Solving and Reasoning

Problem Solving and Reasoning

Use it!



Complete the pyramid using addition and subtraction.



Convince me!



Mo, Whitney, Teddy and Eva collect marbles.



Mo

I have 1,648 marbles.

I have double the amount of marbles Mo has.



Whitney



Teddy

I have half the amount of marbles Mo has.

In total they have 8,524 marbles between them.

How many does Eva have?

Answers

Question	Answer
1	11884
2	10053
3	10483
4	10336
5	18753
6	10467
7	18260
8	14852
9	5181
10	16225
11	10162
12	12971
13	12535
14	11598
15	10078
16	12452
Challenge	
1	$2132 + 3152 = 5284$
2	$9617 + 6580 = 16\ 197$
3	$2567 + 5398 = 7965$
4	$8821 + 2060 = 10\ 881$

Answers

From left to right:


Bottom row:
3,804, 5,005

Second row:
8,118

Third row:
15,094, 13,391

Fourth row:
28,485, 27,422

Eva has 2,756
marbles.

Date	
Subject/s	Maths
Learning Objective 	To recall and use multiplication and division facts

$3 \times 4 =$

$7 \times 8 =$

$9 \div 3 =$

$36 \div 12 =$

$21 \div 7 =$

$8 \times 6 =$

$12 \times 4 =$

$10 \times 8 =$

$4 \times 8 =$

$3 \times 9 =$

$4 \times 7 =$

$3 \times 11 =$

$40 \div 8 =$

$15 \div 3 =$

$27 \div 9 =$

$20 \div 4 =$

$4 \times 11 =$

$48 \div 6 =$

$8 \div 4 =$

$6 \times 8 =$

$5 \times 8 =$

$11 \times 3 =$

$5 \times 8 =$

$80 \div 10 =$

$24 \div 4 =$

$88 \div 11 =$

$24 \div 3 =$

$4 \times 1 =$

$72 \div 8 =$

$8 \times 4 =$

$9 \times 4 =$

$8 \times 5 =$

$10 \times 3 =$

$16 \div 4 =$

$8 \times 11 =$

$6 \times 4 =$

$5 \times 4 =$

$32 \div 8 =$

$6 \div 3 =$

$3 \div 3 =$

$12 \div 3 =$

$3 \times 6 =$

$48 \div 12 =$

$44 \div 11 =$

$4 \times 9 =$

$8 \div 8 =$

$3 \times 4 =$

$7 \times 3 =$

$11 \times 8 =$

$4 \times 3 =$

$0 \times 8 =$

$12 \times 8 =$

$3 \times 12 =$

$48 \div 8 =$

$18 \div 3 =$

$28 \div 4 =$

$24 \div 8 =$

$30 \div 10 =$

$3 \times 3 =$

$56 \div 7 =$

$27 \div 3 =$

$8 \times 9 =$

$64 \div 8 =$

$4 \times 12 =$

$7 \times 4 =$

$10 \times 4 =$

$36 \div 4 =$

$5 \times 3 =$

$36 \div 9 =$

$16 \div 8 =$

$8 \times 8 =$

$56 \div 7 =$

$56 \div 8 =$

$8 \times 3 =$

$21 \div 3 =$

$4 \times 6 =$

$3 \times 0 =$

$72 \div 9 =$

$4 \times 12 =$

$32 \div 4 =$

$12 \div 4 =$

$3 \times 8 =$

$96 \div 12 =$

$12 \times 3 =$

$33 \div 3 =$

$4 \times 4 =$

$24 \div 8 =$

$7 \times 8 =$

$6 \times 3 =$

$9 \times 8 =$

$2 \times 3 =$

$9 \times 3 =$

$40 \div 4 =$

$4 \div 4 =$

$11 \times 4 =$





$21 \div 3 =$

$28 \div 7 =$

$3 \times 7 =$

$32 \div 8 =$

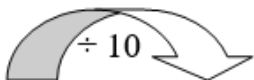
$8 \times 12 =$

Date			
Subject/s	<u>Maths</u>		
Learning Objective 	To multiply and divide by 10, 100 and 1000		
		SA 	TA 
Success Criteria 	I know when multiplying digits move to the left		
	I know when dividing digits move to the right		
	I know when multiplying/dividing by		
	10 = digits move 1 place 100 = digits move 2 places 1000 = digits move 3 places		
Support	Independent	Adult Support ()	Group Work
Pre-task: Complete these questions $34 \times 10 =$ $724 \times 100 =$ $460 / 10 =$ $23500 / 1000 =$			

Teacher Led

<https://corbettmathsprimary.com/2018/07/24/multiplying-and-dividing-by-10-100-and-1000-videos/>

<u>Th</u>	H	T	O	t	h
		2	7	0	0
		($\div 10$)	2	7	0
		($\div 100$)	0	2	7



To divide by 10, move the digits one space to the right

To divide by 100, move the digits two spaces to the right

Multiplying and Dividing by 10, 100 and 1000

10 000	1000	100	10	1	●	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$
					●			

Multiplying

X 10
X 100
X 1000

digits move LEFT 1 space
digits move LEFT 2 spaces
digits move LEFT 3 spaces



Dividing

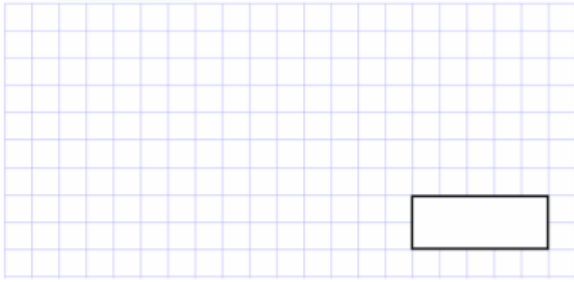
$\div 10$
 $\div 100$
 $\div 1000$

digits move RIGHT 1 space
digits move RIGHT 2 spaces
digits move RIGHT 3 spaces

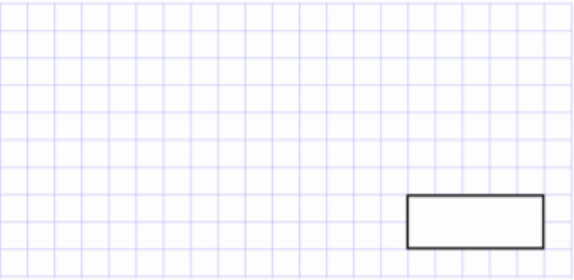


Fluency

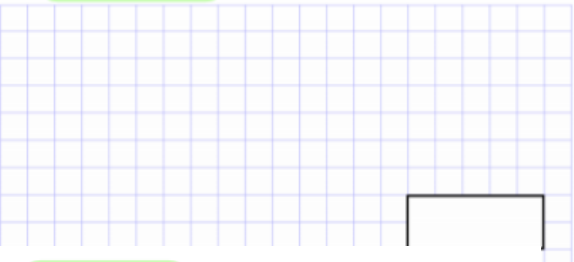
1. 8×100



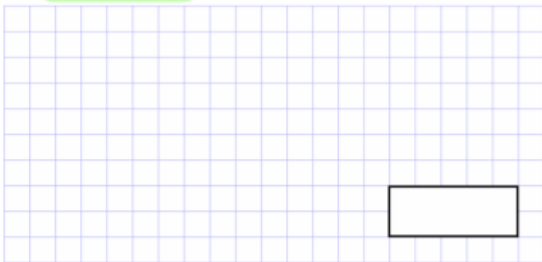
2. $1,000 \times 4$



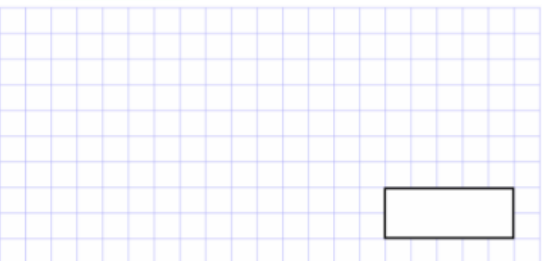
3. 100×25



7. $610 \div 10$



8. $900 \div 100$



9. $4,000 \div 100$



4. Circle the number that is 10 times smaller than 80

90 70 8 800

5. Natalie wants to buy a car.
She saves £100 a month.



How much money will she have saved after 11 months?

£

6. A box holds 10 eggs.
Martha buys 45 boxes of eggs.

How many eggs does Martha buy?

10. A ticket for a charity concert costs £10.
450 tickets are sold.

How much money is raised for charity?

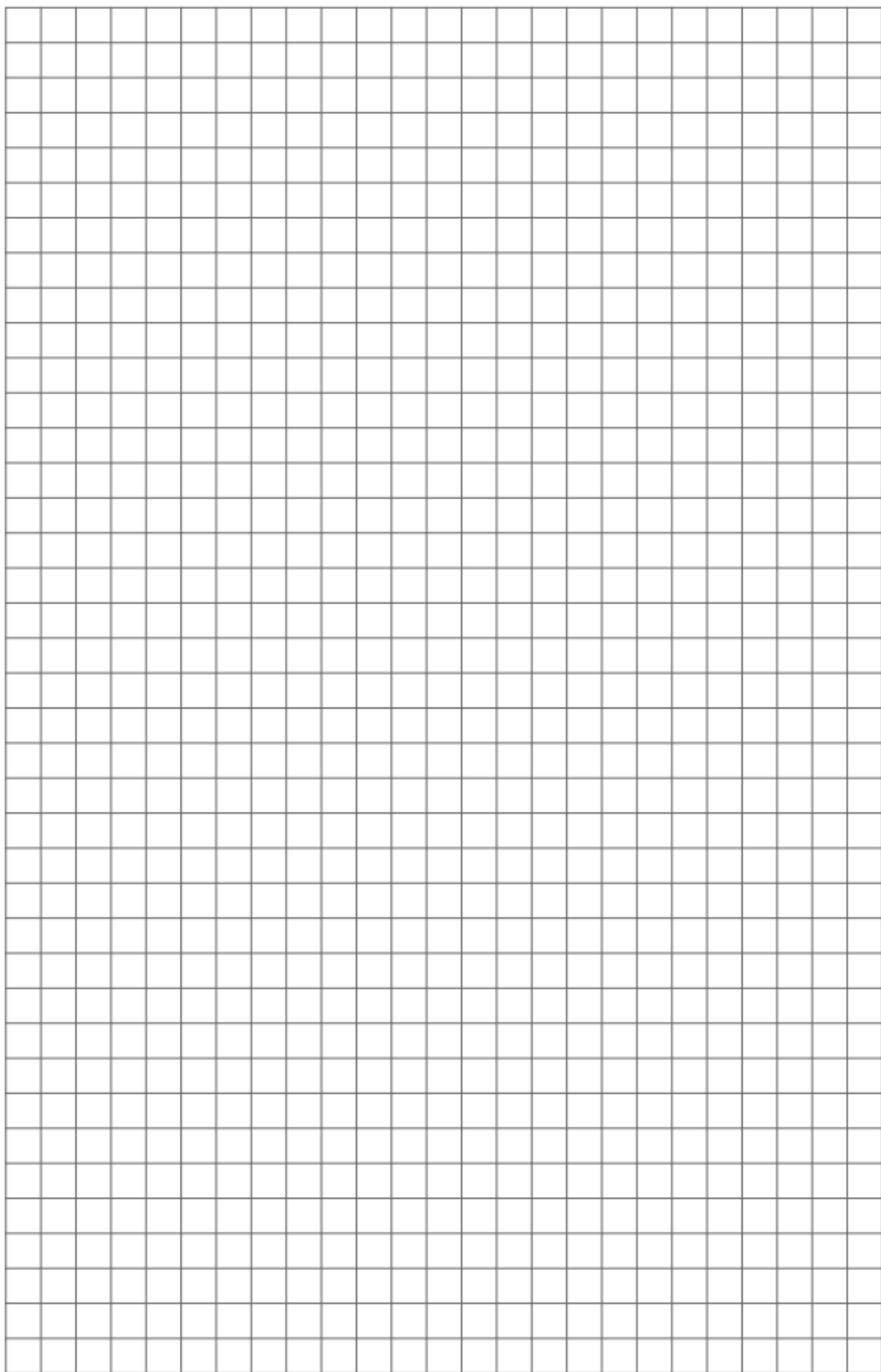
£

11. Barry prints books that each have 100 pages.
In total, he prints 9,000 pages

How many books did Barry print?

12. Circle the number that is 10 times greater than eight hundred and forty.

8,040 84 8,004 8,400 840



Problem Solving and Reasoning

Explain it!

Whitney has £1,020 in her bank account.



Tommy has £120 in his bank account.

Whitney says,



I have ten times more money than you

Is Whitney correct? Explain your reasoning.

Use it!



Use $<$, $>$ or $=$ to complete the statements.

$71 \times 1,000$	<input type="radio"/>	71×100
100×32	<input type="radio"/>	$16 \times 1,000$
48×100	<input type="radio"/>	$48 \times 10 \times 10 \times 10$

Explain it!

$$6 \times 7 = 42$$



Alex uses this multiplication fact to solve

$$420 \div 70 = \underline{\quad}$$

Convince me!



Alex says,



The answer is 60 because all of the numbers are 10 times bigger.

Do you agree with Alex?

Explain your answer.

Use it!

Here are the answers to some problems:



5,700

405


397

6,203

Can you write at least two questions for each answer involving dividing by 10, 100 or 1,000?

Answers

Answers
Whitney is incorrect, she would need to have £1,200 if this were the case (Or Tommy would need to be £102).
1. > 2. < 3. =
Alex is wrong; both numbers (the dividend and divisor) are 10 times bigger than the numbers in the multiplication so the answer is 6. $6 \times 70 = 420$, therefore $420 \div 70 = 6$

Date	
Subject/s	Maths
Learning Objective 	To recall and use multiplication and division facts

1) $7 \times 2 = \underline{\quad}$

2) $3 \times 8 = \underline{\quad}$

3) $4 \times 6 = \underline{\quad}$

4) $2 \times 9 = \underline{\quad}$

5) $6 \times 4 = \underline{\quad}$

6) $8 \times 4 = \underline{\quad}$

7) $7 \times 5 = \underline{\quad}$

8) $9 \times 10 = \underline{\quad}$

9) $6 \times 6 = \underline{\quad}$

1) $6 \times \underline{\quad} = 18$

2) $8 \times \underline{\quad} = 16$

3) $\underline{\quad} \times 7 = 7$

4) $\underline{\quad} \times 9 = 45$

5) $7 \times \underline{\quad} = 21$

6) $\underline{\quad} \times 6 = 36$

7) $\underline{\quad} \times 8 = 40$

8) $9 \times \underline{\quad} = 90$

9) $\underline{\quad} \times 8 = 32$

10) $\underline{\quad} \times 6 = 24$

11) $7 \times \underline{\quad} = 63$

12) $\underline{\quad} \times 6 = 0$

13) $\underline{\quad} \times 8 = 80$

14) $9 \times \underline{\quad} = 54$

15) $6 \times \underline{\quad} = 42$

16) $\underline{\quad} \times 8 = 56$

17) $\underline{\quad} \times 9 = 81$

18) $6 \times \underline{\quad} = 30$

19) $8 \times \underline{\quad} = 48$

20) $\underline{\quad} \times 9 = 18$

21) $8 \times 6 = \underline{\quad}$

22) $7 \times 9 = \underline{\quad}$

23) $6 \times 7 = \underline{\quad}$

24) $8 \times 8 = \underline{\quad}$

25) $6 \times 3 = \underline{\quad}$

26) $9 \times 6 = \underline{\quad}$

27) $7 \times 5 = \underline{\quad}$

28) $8 \times 9 = \underline{\quad}$

29) $10 \times 7 = \underline{\quad}$

21) $\underline{\quad} \times 7 = 49$

22) $8 \times \underline{\quad} = 72$

23) $\underline{\quad} \times 6 = 48$

24) $9 \times \underline{\quad} = 45$

25) $\underline{\quad} \times 7 = 63$

26) $6 \times \underline{\quad} = 36$

27) $8 \times \underline{\quad} = 64$

28) $\underline{\quad} \times 6 = 42$

29) $\underline{\quad} \times 9 = 72$

30) $7 \times \underline{\quad} = 56$

31) $\underline{\quad} \times 8 = 48$

32) $6 \times \underline{\quad} = 60$

33) $9 \times \underline{\quad} = 45$

34) $\underline{\quad} \times 8 = 72$

35) $\underline{\quad} \times 7 = 28$

36) $9 \times \underline{\quad} = 81$






37) $\underline{\quad} \times 6 = 6$

38) $\underline{\quad} \times 8 = 64$

39) $7 \times \underline{\quad} = 49$

40) $\underline{\quad} \times 9 = 54$

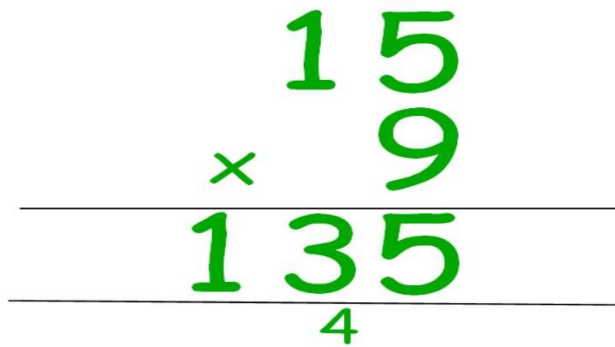
Steps to Success

Date			
Subject/s	<u>Maths</u>		
Learning Objective  	To use short multiplication		
		SA 	TA 
Success Criteria 	I know to start with the ones		
	I can use my times tables knowledge		
	I know to add the numbers that have been exchanged		
Support	Independent	Adult Support ()	Group Work
Pre-task: Calculate $24 \times 8 =$ $72 \times 3 =$ $19 \times 7 =$ $574 \times 4 =$			

Teacher Led

Watch up to 1min 29secs <https://www.youtube.com/watch?v=wayoCIgl08I&safe=active>

Short Multiplication



A short multiplication diagram showing the calculation of 15 multiplied by 9. The numbers 15 and 9 are written in green above a horizontal line. A multiplication sign (x) is placed to the left of the 5. Below the line, the result 135 is written in green. A small green '4' is written below the 3, representing the carry from the ones column. A second horizontal line is drawn below the 135. The background of the diagram is white, and it is set against a larger brown background with faint numbers 2, 7, and 5.

$$\begin{array}{r} 15 \\ \times 9 \\ \hline 135 \\ \hline \end{array}$$

I start with the ones column

$$5 \times 9 = 45$$

I put the 4 in the tens column

$$1 \times 9 = 9 \text{ Then add the } 4 = 13$$

Put the 1 in the hundreds column

$$15 \times 9 = 135$$

Fluency

$33 \times 7 =$

$43 \times 6 =$

$53 \times 4 =$

$62 \times 2 =$

$38 \times 9 =$

$21 \times 3 =$

$18 \times 6 =$

$54 \times 8 =$

$82 \times 7 =$

$71 \times 3 =$

$15 \times 9 =$

$92 \times 6 =$

$25 \times 7 =$

$39 \times 8 =$

$48 \times 5 =$

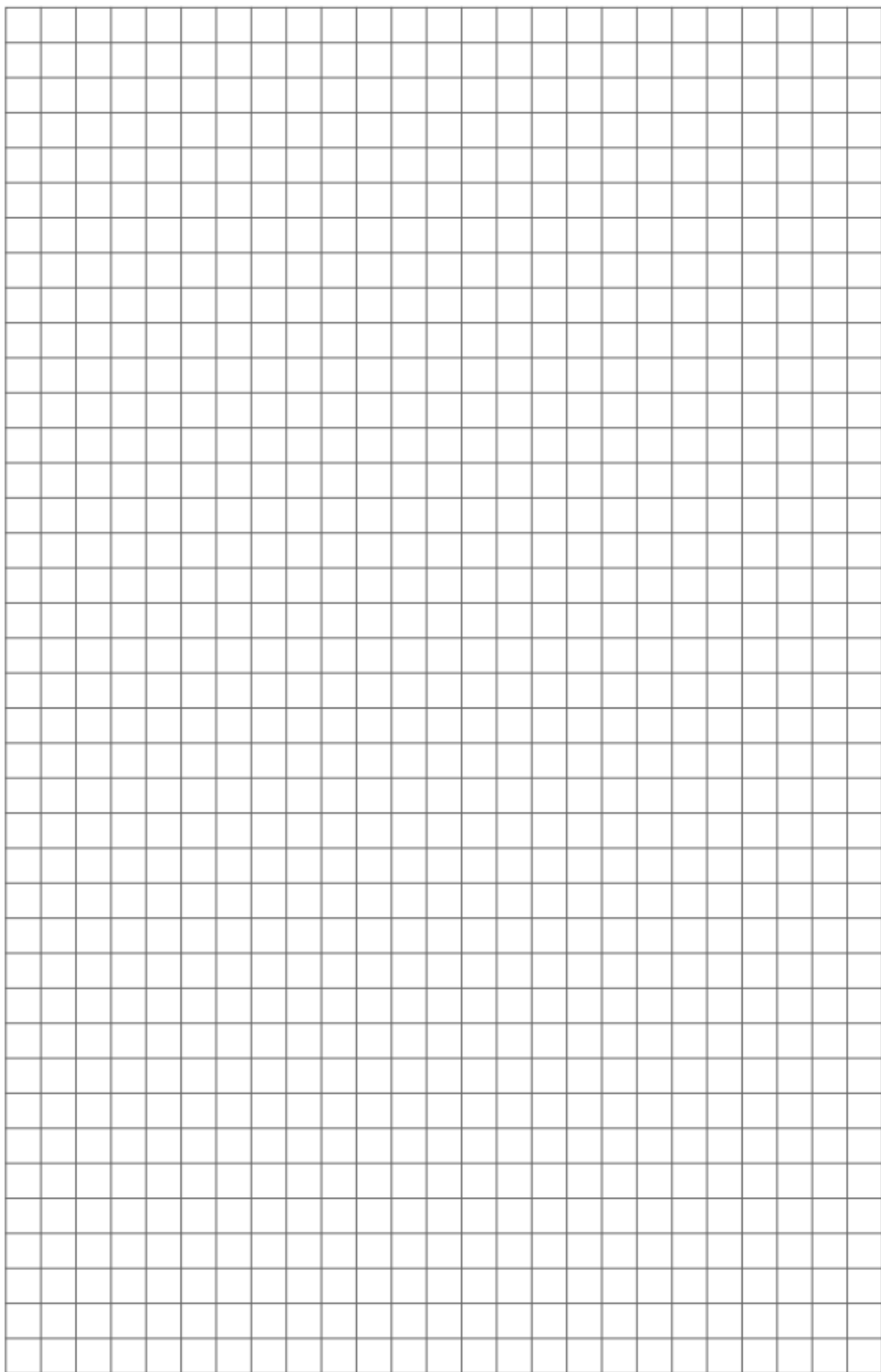
$27 \times 6 =$

$76 \times 4 =$

$92 \times 3 =$

$88 \times 6 =$

$66 \times 3 =$



Problem Solving and Reasoning

Use it!



$$\begin{array}{r} _7_ \\ \times \quad 4 \\ \hline 2684 \\ \hline \end{array}$$

Use it!



How many different solutions can you find to solve this missing number question?

Explain it!



$$\begin{array}{r} _36_ \\ \times \quad _ \\ \hline _ _ _ 6 \end{array}$$

Convince me!



Is the answer correct? Why?

$$\begin{array}{r} 452 \\ \times \quad 3 \\ \hline 12156 \\ \hline \end{array}$$

Further Challenge

How many ways?

Complete using digits 0-9. The digit in the box with a border must be odd.

$$\square \square \times \square = \square \square \square$$

Level 1: I can find a way

Level 2: I can find different ways

Level 3: I know how many ways there are

Answers

$33 \times 7 = 231$

$43 \times 6 = 258$

$53 \times 4 = 212$

$62 \times 2 = 124$

$38 \times 9 = 342$

$21 \times 3 = 63$

$18 \times 6 = 108$

$54 \times 8 = 432$

$82 \times 7 = 574$

$71 \times 3 = 213$

$15 \times 9 = 135$

$92 \times 6 = 552$

$25 \times 7 = 175$

$39 \times 8 = 312$

$48 \times 5 = 240$

$27 \times 6 = 162$

$76 \times 4 = 304$

$92 \times 3 = 276$

$88 \times 6 = 528$

$66 \times 3 = 198$

Answer


671

Children to create answers

Incorrect





$$\begin{array}{r} 452 \\ \times 3 \\ \hline 12156 \end{array}$$

• $50 \times 3 = 150$, but the hundred must be carried to add to the 400×3 . The answer is 1356.

Date	
Subject/s	Maths
Learning Objective 	To recall and use multiplication and division facts

1	9 X 7		30	6 x 9		59	9 X 4	
2	8 x 4		31	12 x 3		60	7 x 6	
3	7 x 10		32	3 x 8		61	4 x 8	
4	9 x 9		33	8 X 8		62	12 X 2	
5	6 x 2		34	6 x 8		63	3 x 6	
6	4 x 7		35	11 x 7		64	4 x 10	
7	9 X 2		36	10 x 1		65	9 x 11	
8	12 x 12		37	10 x 5		66	3 x 12	
9	5 X 9		38	3 x 5		67	3 x 10	
10	7 X 7		39	12 x 11		68	4 X 4	
11	11 x 6		40	6 x 6		69	4 x 9	
12	5 x 11		41	2 x 9		70	4 x 11	
13	4 x 6		42	12 x 7		71	6 x 5	
14	9 x 5		43	11 x 8		72	7 x 2	
15	8 X 12		44	2 x 6		73	5 x 12	
16	10 x 10		45	4 x 5		74	2 x 10	
17	7 x 3		46	4 x 9		75	4 x 12	
18	5 x 8		47	8 x 2		76	7 x 8	
19	3 x 3		48	7 x 9		77	6 x 10	
20	10 x 11		49	12 x 8		78	12 x 6	
21	11 x 2		50	9 X 4		79	7 x 12	
22	2 x 7		51	5 X 5		80	2 X 2	
23	6 x 12		52	10 x 12		81	11 x 0	
24	5 x 7		53	8 x 11		82	2 x 12	
25	10 x 6		54	4 x 3		83	2 X 4	
26	9 x 12		55	2 x 5		84	8 x 5	
27	5 x 4		56	5 x 10		85	7 x 11	
28	11 x 11		57	9 x 3		86	9 x 6	
29	7 x 4		58	8 x 10		87	10 x 11	

Steps to Success

Date			
Subject/s	<u>Maths</u>		
Learning Objective 	To use long multiplication		
		SA 	TA 
Success Criteria 	I know to start with the ones		
	I know to use a place holder when multiplying the tens or hundreds		
	I can add answers		
Support	Independent	Adult Support ()	Group Work

Pre-task:

Calculate.

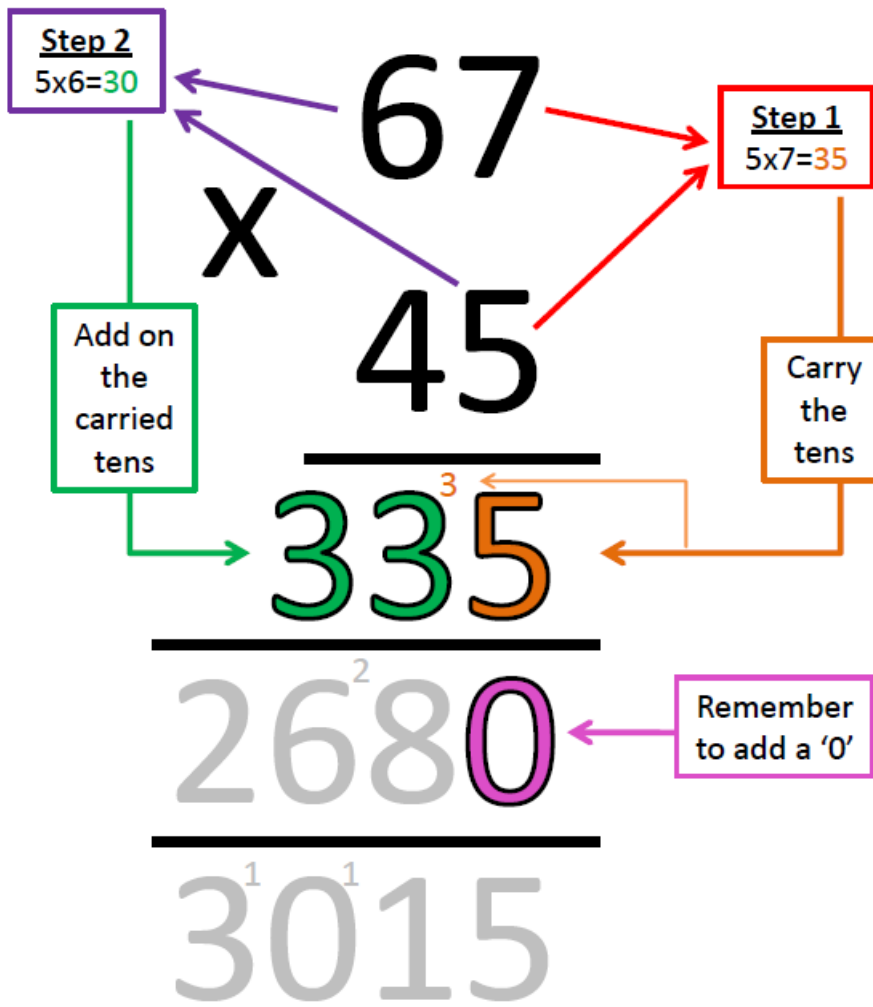
	4	2	6	7
×			3	4
<hr/>				

	3	0	4	6
×			7	3
<hr/>				

$5,734 \times 26$

Teacher Led

Watch <https://corbettmaths.com/2013/02/15/multiplication-traditional/>



Fluency

$$\begin{array}{r} 1: \\ 18 \\ \times 94 \\ \hline \end{array}$$

$$\begin{array}{r} 2: \\ 17 \\ \times 75 \\ \hline \end{array}$$

$$\begin{array}{r} 3: \\ 10 \\ \times 85 \\ \hline \end{array}$$

$$\begin{array}{r} 4: \\ 10 \\ \times 77 \\ \hline \end{array}$$

$$\begin{array}{r} 5: \\ 19 \\ \times 83 \\ \hline \end{array}$$

$$\begin{array}{r} 6: \\ 14 \\ \times 91 \\ \hline \end{array}$$

$$\begin{array}{r} 7: \\ 10 \\ \times 65 \\ \hline \end{array}$$

$$\begin{array}{r} 8: \\ 16 \\ \times 63 \\ \hline \end{array}$$

$$\begin{array}{r} 9: \\ 12 \\ \times 42 \\ \hline \end{array}$$

$$\begin{array}{r} 529 \\ \times 65 \\ \hline \end{array}$$

$$\begin{array}{r} 279 \\ \times 86 \\ \hline \end{array}$$

$$\begin{array}{r} 300 \\ \times 73 \\ \hline \end{array}$$

$$\begin{array}{r} 101 \\ \times 67 \\ \hline \end{array}$$

$$\begin{array}{r} 904 \\ \times 51 \\ \hline \end{array}$$

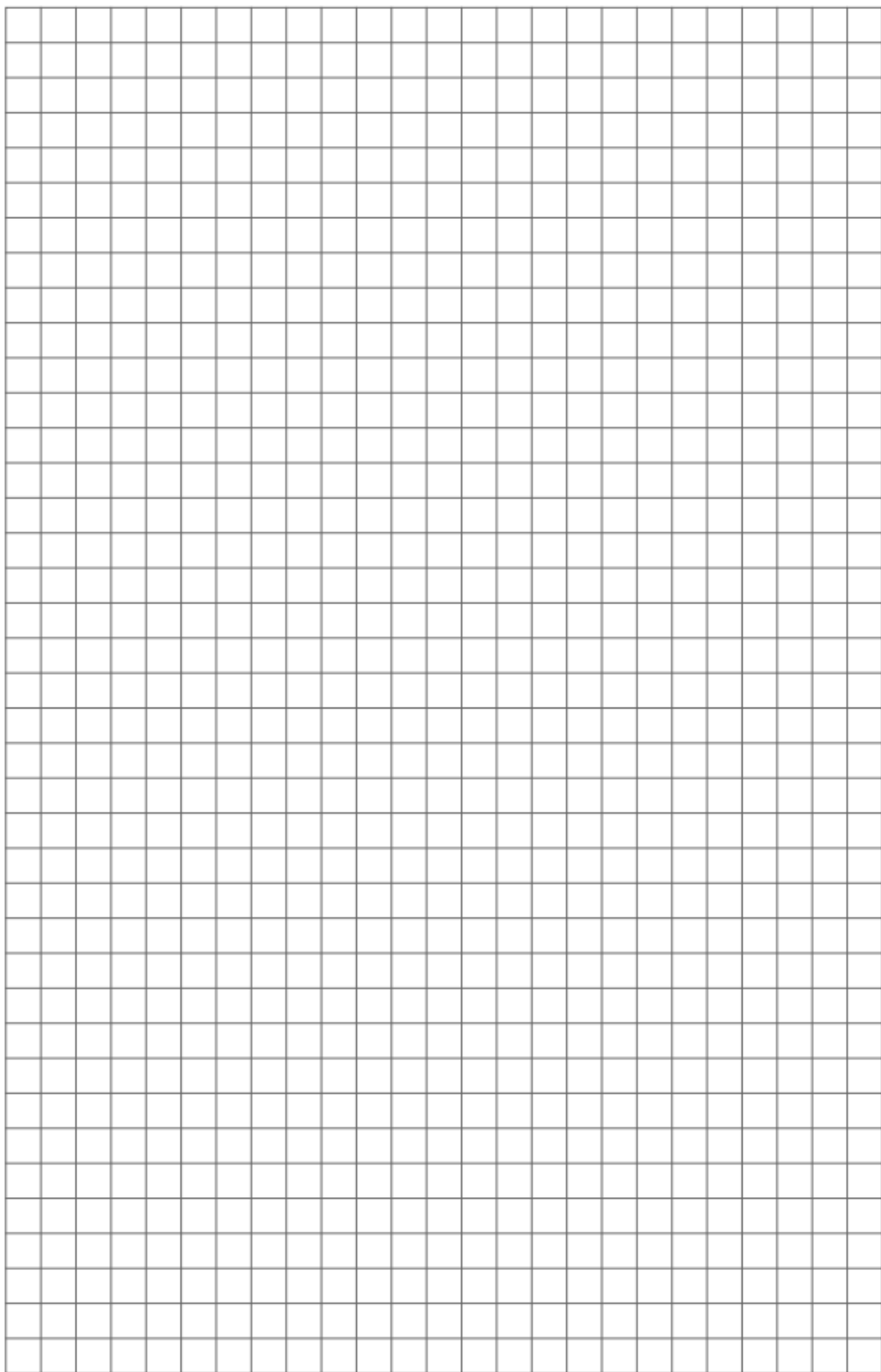
$$\begin{array}{r} 616 \\ \times 41 \\ \hline \end{array}$$

$$\begin{array}{r} 604 \\ \times 88 \\ \hline \end{array}$$

$$\begin{array}{r} 187 \\ \times 59 \\ \hline \end{array}$$

$$\begin{array}{r} 720 \\ \times 89 \\ \hline \end{array}$$

$$\begin{array}{r} 860 \\ \times 22 \\ \hline \end{array}$$



Problem Solving and Reasoning

Use it!



Jack made cookies for a bake sale.
He made 345 cookies.
The recipe says that he should have 17 raisins in each cookie.
How many raisins did he use altogether?

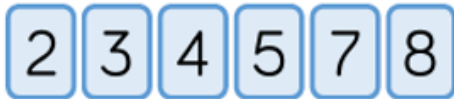
Convince me!

True or False?



- $5,463 \times 18 = 18 \times 5,463$
- I can find the answer to $1,100 \times 28$ by calculating $1,100 \times 30$ and subtracting 2 lots of 1,100
- $702 \times 9 = 701 \times 10$

Convince me!



Place the digits in the boxes to make the largest product.

	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
×	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Answers

1:
$$\begin{array}{r} 18 \\ \times 94 \\ \hline 72 \\ 162 \\ \hline 1692 \end{array}$$

2:
$$\begin{array}{r} 17 \\ \times 75 \\ \hline 85 \\ 119 \\ \hline 1275 \end{array}$$

3:
$$\begin{array}{r} 10 \\ \times 85 \\ \hline 50 \\ 80 \\ \hline 850 \end{array}$$

4:
$$\begin{array}{r} 10 \\ \times 77 \\ \hline 70 \\ 70 \\ \hline 770 \end{array}$$

5:
$$\begin{array}{r} 19 \\ \times 83 \\ \hline 57 \\ 152 \\ \hline 1577 \end{array}$$

6:
$$\begin{array}{r} 14 \\ \times 91 \\ \hline 14 \\ 126 \\ \hline 1274 \end{array}$$

7:
$$\begin{array}{r} 10 \\ \times 65 \\ \hline 50 \\ 60 \\ \hline 650 \end{array}$$

8:
$$\begin{array}{r} 16 \\ \times 63 \\ \hline 48 \\ 96 \\ \hline 1008 \end{array}$$

9:
$$\begin{array}{r} 12 \\ \times 42 \\ \hline 24 \\ 48 \\ \hline 504 \end{array}$$

Answers

$345 \times 17 = 5865$

$\begin{array}{r} 529 \\ \times 65 \\ \hline 2645 \\ 31740 \\ \hline 34385 \end{array}$	$\begin{array}{r} 279 \\ \times 86 \\ \hline 1674 \\ 22320 \\ \hline 23994 \end{array}$	$\begin{array}{r} 300 \\ \times 73 \\ \hline 900 \\ 21000 \\ \hline 21900 \end{array}$	$\begin{array}{r} 101 \\ \times 67 \\ \hline 707 \\ 6060 \\ \hline 6767 \end{array}$	$\begin{array}{r} 904 \\ \times 51 \\ \hline 904 \\ 45200 \\ \hline 46104 \end{array}$
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$\begin{array}{r} 616 \\ \times 41 \\ \hline 616 \\ 24640 \\ \hline 25256 \end{array}$	$\begin{array}{r} 604 \\ \times 88 \\ \hline 4832 \\ 48320 \\ \hline 53152 \end{array}$	$\begin{array}{r} 187 \\ \times 59 \\ \hline 1683 \\ 9350 \\ \hline 11033 \end{array}$	$\begin{array}{r} 720 \\ \times 89 \\ \hline 6480 \\ 57600 \\ \hline 64080 \end{array}$	$\begin{array}{r} 860 \\ \times 22 \\ \hline 1720 \\ 17200 \\ \hline 18920 \end{array}$
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True

True





False

$$\begin{array}{r} 8432 \\ \times 75 \\ \hline 632000 \end{array}$$

Date	
Subject/s	Maths
Learning Objective 	To recall and use multiplication and division facts

$2 \times 2 =$	$3 \times 3 =$	$4 \times 4 =$	$11 \times 10 =$
$3 \times 5 =$	$6 \times 8 =$	$7 \times 5 =$	$10 \times 2 =$
$4 \times 6 =$	$12 \times 5 =$	$8 \times 12 =$	$3 \times 12 =$
$7 \times 4 =$	$8 \times 6 =$	$10 \times 11 =$	$4 \times 9 =$
$10 \times 10 =$	$10 \times 12 =$	$4 \times 2 =$	$5 \times 7 =$
$9 \times 3 =$	$11 \times 2 =$	$10 \times 3 =$	$9 \times 8 =$
$7 \times 2 =$	$3 \times 9 =$	$6 \times 8 =$	$10 \times 7 =$
$11 \times 3 =$	$4 \times 11 =$	$12 \times 10 =$	$7 \times 8 =$
$10 \times 5 =$	$2 \times 5 =$	$2 \times 11 =$	$4 \times 3 =$
$2 \times 4 =$	$6 \times 10 =$	$8 \times 3 =$	$12 \times 4 =$
$5 \times 6 =$	$10 \times 9 =$	$3 \times 4 =$	$5 \times 8 =$
$7 \times 10 =$	$2 \times 12 =$	$4 \times 5 =$	$8 \times 8 =$
$9 \times 2 =$	$5 \times 3 =$	$7 \times 8 =$	$12 \times 2 =$
$3 \times 11 =$	$9 \times 4 =$	$8 \times 10 =$	$5 \times 4 =$
$10 \times 4 =$	$5 \times 5 =$	$2 \times 8 =$	$9 \times 5 =$
$8 \times 5 =$	$8 \times 8 =$	$8 \times 0 =$	$8 \times 11 =$
$9 \times 8 =$	$9 \times 10 =$	$4 \times 12 =$	$2 \times 10 =$
$4 \times 10 =$	$5 \times 2 =$	$12 \times 8 =$	$4 \times 7 =$
$3 \times 2 =$	$6 \times 3 =$	$3 \times 6 =$	$11 \times 5 =$
$7 \times 3 =$	$6 \times 4 =$	$5 \times 10 =$	$2 \times 3 =$
$4 \times 8 =$	$5 \times 11 =$	$8 \times 2 =$	$8 \times 9 =$
$5 \times 9 =$	$2 \times 6 =$	$3 \times 7 =$	$8 \times 4 =$
$12 \times 8 =$	$3 \times 10 =$	$11 \times 4 =$	$11 \times 8 =$
$2 \times 9 =$	$2 \times 7 =$	$5 \times 12 =$	$12 \times 3 =$
$10 \times 8 =$	$3 \times 8 =$	$0 \times 4 =$	$8 \times 7 =$

Steps to Success

Date			
Subject/s	<u>Maths</u>		
Learning Objective 	To use short division		
		SA 	TA 
Success Criteria 	I can put the first number inside the bus stop		
	I can put the number I am dividing by on the outside		
	I can write remainders next to correct digits		
Support	Independent	Adult Support ()	Group Work
<p>Pre-task:</p> <p>Calculate using short division.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; padding: 5px; display: flex; gap: 5px;"> 5 7 2 5 </div> <div style="border: 1px solid black; padding: 5px; display: flex; gap: 5px;"> 3 1 9 3 8 </div> </div> <p>List the multiples of the divisors to help you calculate</p>			

Teacher Led

Watch <https://corbettmaths.com/2013/12/28/division-video-98/>

$$186 \div 6 = \begin{array}{r} 031 \\ 6 \overline{) 186} \\ \underline{18} \\ 6 \\ \underline{6} \\ 0 \end{array}$$

no groups of 6
can be made

$1 \times 6 = 6$

$3 \times 6 = 18$

$$96 \div 4 = 24$$

$$\begin{array}{r} 24 \\ 4 \overline{) 96} \\ \underline{8} \\ 16 \\ \underline{16} \\ 0 \end{array}$$

$$9 \div 4 = 2 \text{ r } 1$$

$$16 \div 4 = 4$$

$$362 \div 7 =$$

$$\begin{array}{r} 51 \text{ r } 5 \\ 7 \overline{) 362} \\ \underline{35} \\ 12 \\ \underline{14} \\ 2 \end{array}$$

$$362 \div 7 = 51 \text{ r } 5$$

Fluency

$$7 \overline{)124}$$

$$4 \overline{)204}$$

$$6 \overline{)323}$$

$$5 \overline{)293}$$

$$5 \overline{)344}$$

$$8 \overline{)160}$$

$$6 \overline{)199}$$

$$3 \overline{)192}$$

$$9 \overline{)405}$$

$$2 \overline{)126}$$

$$9 \overline{)248}$$

$$4 \overline{)302}$$

$$9 \overline{)5385}$$

$$6 \overline{)3939}$$

$$4 \overline{)2970}$$

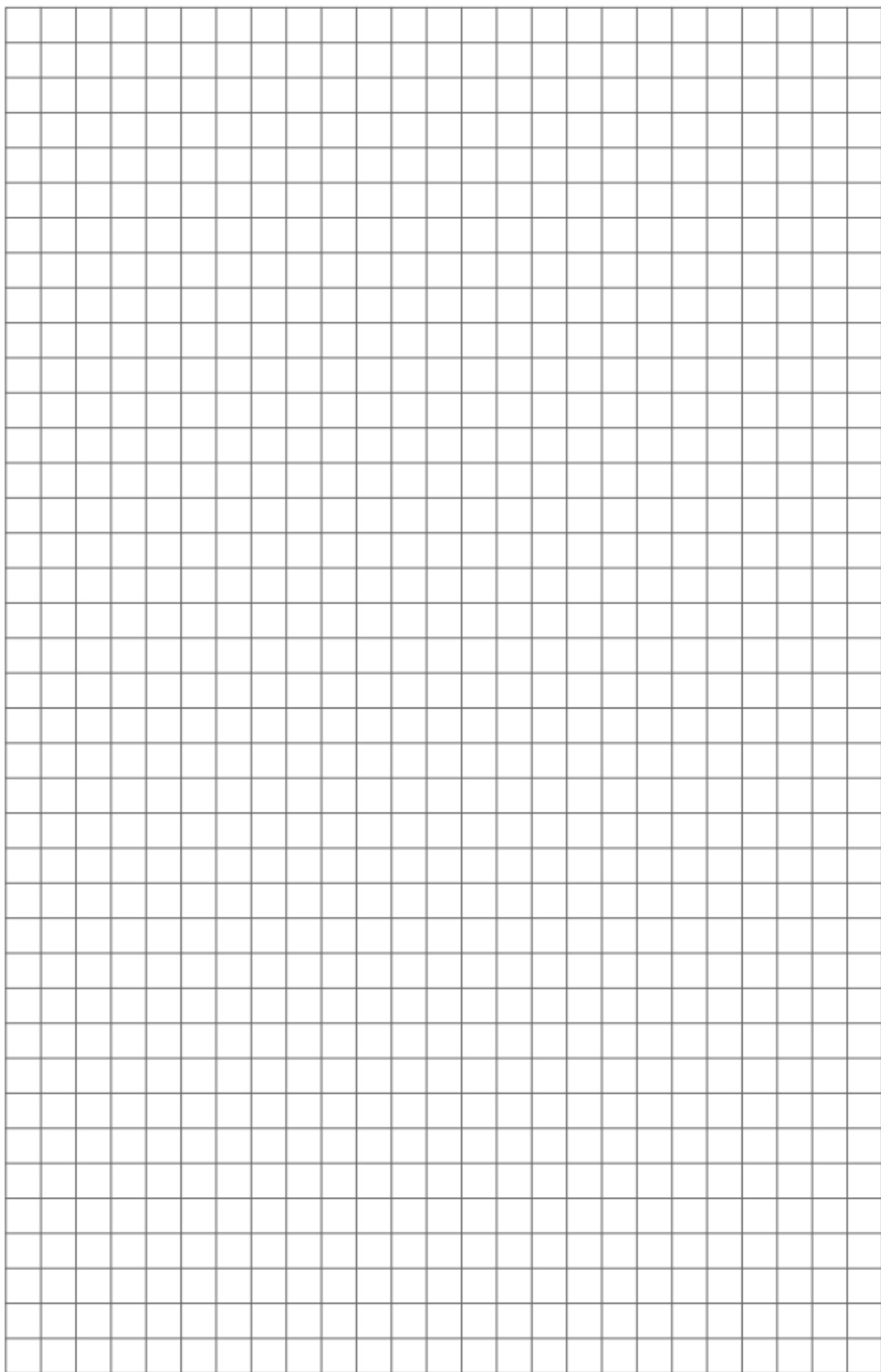
$$5 \overline{)960}$$

$$3 \overline{)335}$$

$$7 \overline{)3927}$$

$$3 \overline{)2850}$$

$$8 \overline{)2696}$$



Problem Solving and Reasoning

Convince me!

A limousine company allows 14 people per limousine.
How many limousines need to be hired for 230 people?



Use it!



Use it!

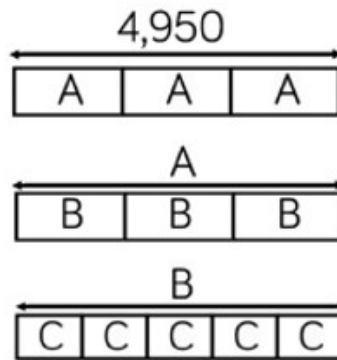
Find the missing digits



$$\begin{array}{r} 041\text{r}3 \\ 4 \overline{)1\text{ }59} \end{array}$$

Use it!

Work out the value of C
(The bar models are not drawn to scale)



Explain it!

Explain the mistakes

$$564 \div 3$$

Mistake 1

$$\begin{array}{r} 121 \\ 3 \overline{)564} \end{array}$$

Mistake 2

$$\begin{array}{r} 194 \text{ r}2 \\ 3 \overline{)564} \end{array}$$

Mistake 3

$$\begin{array}{r} 187 \\ 3 \overline{)564} \end{array}$$



Answers

$$7 \overline{)124} \quad 17 \text{ r } 5$$

$$4 \overline{)204} \quad 51$$

$$6 \overline{)323} \quad 53 \text{ r } 5$$

$$5 \overline{)293} \quad 58 \text{ r } 3$$

$$5 \overline{)344} \quad 68 \text{ r } 4$$

$$8 \overline{)160} \quad 20$$

$$6 \overline{)199} \quad 33 \text{ r } 1$$

$$3 \overline{)192} \quad 64$$

$$9 \overline{)405} \quad 45$$

$$2 \overline{)126} \quad 63$$

$$9 \overline{)248} \quad 27 \text{ r } 5$$

$$4 \overline{)302} \quad 75 \text{ r } 2$$

$$9 \overline{)5385} \quad 598 \text{ r } 3$$

$$6 \overline{)3939} \quad 656 \text{ r } 3$$

$$4 \overline{)2970} \quad 742 \text{ r } 2$$

$$5 \overline{)960} \quad 192$$

$$3 \overline{)335} \quad 111 \text{ r } 2$$

$$7 \overline{)3927} \quad 561$$

$$3 \overline{)2850} \quad 950$$

$$8 \overline{)2696} \quad 337$$

17 as 16 will not give enough

$$\begin{array}{r} 041\dot{4}\text{r}3 \\ 4\overline{)1\dot{6}59} \end{array}$$

$$4,950 + 3 = 1,650$$


$$1,650 + 3 = 330$$

$$330 + 5 = 66$$

Mistake 1
They didn't add their remainders

Mistake 2
3x9=27 so they can only get 8 into 26

Mistake 3
3x8 = 24 not 3x7

Date	
Subject/s	Maths
Learning Objective 	To recall and use multiplication and division facts

$3 \times 4 =$

$7 \times 8 =$

$9 \div 3 =$

$36 \div 12 =$

$21 \div 7 =$

$8 \times 6 =$

$12 \times 4 =$

$10 \times 8 =$

$4 \times 8 =$

$3 \times 9 =$

$4 \times 7 =$

$3 \times 11 =$

$40 \div 8 =$

$15 \div 3 =$

$27 \div 9 =$

$20 \div 4 =$

$4 \times 11 =$

$48 \div 6 =$

$8 \div 4 =$

$6 \times 8 =$

$5 \times 8 =$

$11 \times 3 =$

$5 \times 8 =$

$80 \div 10 =$

$24 \div 4 =$

$88 \div 11 =$

$24 \div 3 =$

$4 \times 1 =$

$72 \div 8 =$

$8 \times 4 =$

$9 \times 4 =$

$8 \times 5 =$

$10 \times 3 =$

$16 \div 4 =$

$8 \times 11 =$

$6 \times 4 =$

$5 \times 4 =$

$32 \div 8 =$

$6 \div 3 =$

$3 \div 3 =$

$12 \div 3 =$

$3 \times 6 =$

$48 \div 12 =$

$44 \div 11 =$

$4 \times 9 =$

$8 \div 8 =$

$3 \times 4 =$

$7 \times 3 =$

$11 \times 8 =$

$4 \times 3 =$

$0 \times 8 =$

$12 \times 8 =$

$3 \times 12 =$

$48 \div 8 =$

$18 \div 3 =$

$28 \div 4 =$

$24 \div 8 =$

$30 \div 10 =$

$3 \times 3 =$

$56 \div 7 =$

$27 \div 3 =$

$8 \times 9 =$

$64 \div 8 =$

$4 \times 12 =$

$7 \times 4 =$

$10 \times 4 =$

$36 \div 4 =$

$5 \times 3 =$

$36 \div 9 =$

$16 \div 8 =$

$8 \times 8 =$

$56 \div 7 =$

$56 \div 8 =$

$8 \times 3 =$

$21 \div 3 =$

$4 \times 6 =$

$3 \times 0 =$

$72 \div 9 =$

$4 \times 12 =$

$32 \div 4 =$

$12 \div 4 =$

$3 \times 8 =$

$96 \div 12 =$

$12 \times 3 =$

$33 \div 3 =$

$4 \times 4 =$

$24 \div 8 =$

$7 \times 8 =$

$6 \times 3 =$

$9 \times 8 =$

$2 \times 3 =$

$9 \times 3 =$

$40 \div 4 =$

$4 \div 4 =$

$11 \times 4 =$

$21 \div 3 =$


$28 \div 7 =$




$3 \times 7 =$

$32 \div 8 =$

$8 \times 12 =$

Steps to Success

Date	
Subject/s	Maths
Learning Objective 	I can use long division

		SA 	TA 
Success Criteria 	I can put the first number inside the bus stop and the number I am dividing by on the outside e.g. $3640 \div 15 =$ $15 \overline{)3640}$		
	I can look at the first two digits and calculate how many lots of the divisor gets the closest to the number and subtract e.g. $2 \times 15 = 30$ $15 \overline{)3640}$ $- 30$ 6		
	I can bring the next number down and calculate how many lots of the divisor gets the closest $15 \overline{)3640}$ $- 30$ 64		
	I can continue the method until I reach the end of the number		
Support	Independent	Adult Support ()	Group Work

Pre-task:
Calculate

$$12 \overline{)432}$$

$$15 \overline{)7335}$$

Teacher Led

Watch <https://corbettmaths.com/2020/05/22/long-division-video/>

$$\begin{array}{r} 0 \\ 7 \overline{)452} \\ \underline{-0} \\ 45 \end{array}$$

$$\begin{array}{r} 06 \\ 7 \overline{)452} \\ \underline{-0} \\ 45 \\ \underline{-42} \\ 32 \end{array}$$

$$\begin{array}{r} 064 \\ 7 \overline{)452} \\ \underline{-0} \\ 45 \\ \underline{-42} \\ 32 \\ \underline{-28} \\ 4 \end{array}$$

64 r4

Step 1: "How many times?"

Step 2: "Multiply"

Step 3: "Subtract"

Step 4: "Drop it down"

(repeat steps for each number, left to right)

Fluency

$$66 \overline{)6676}$$

$$23 \overline{)5299}$$

$$44 \overline{)2443}$$

$$52 \overline{)3533}$$

$$33 \overline{)7667}$$

$$65 \overline{)2523}$$

$$70 \overline{)9253}$$

$$56 \overline{)3862}$$

$$54 \overline{)6687}$$

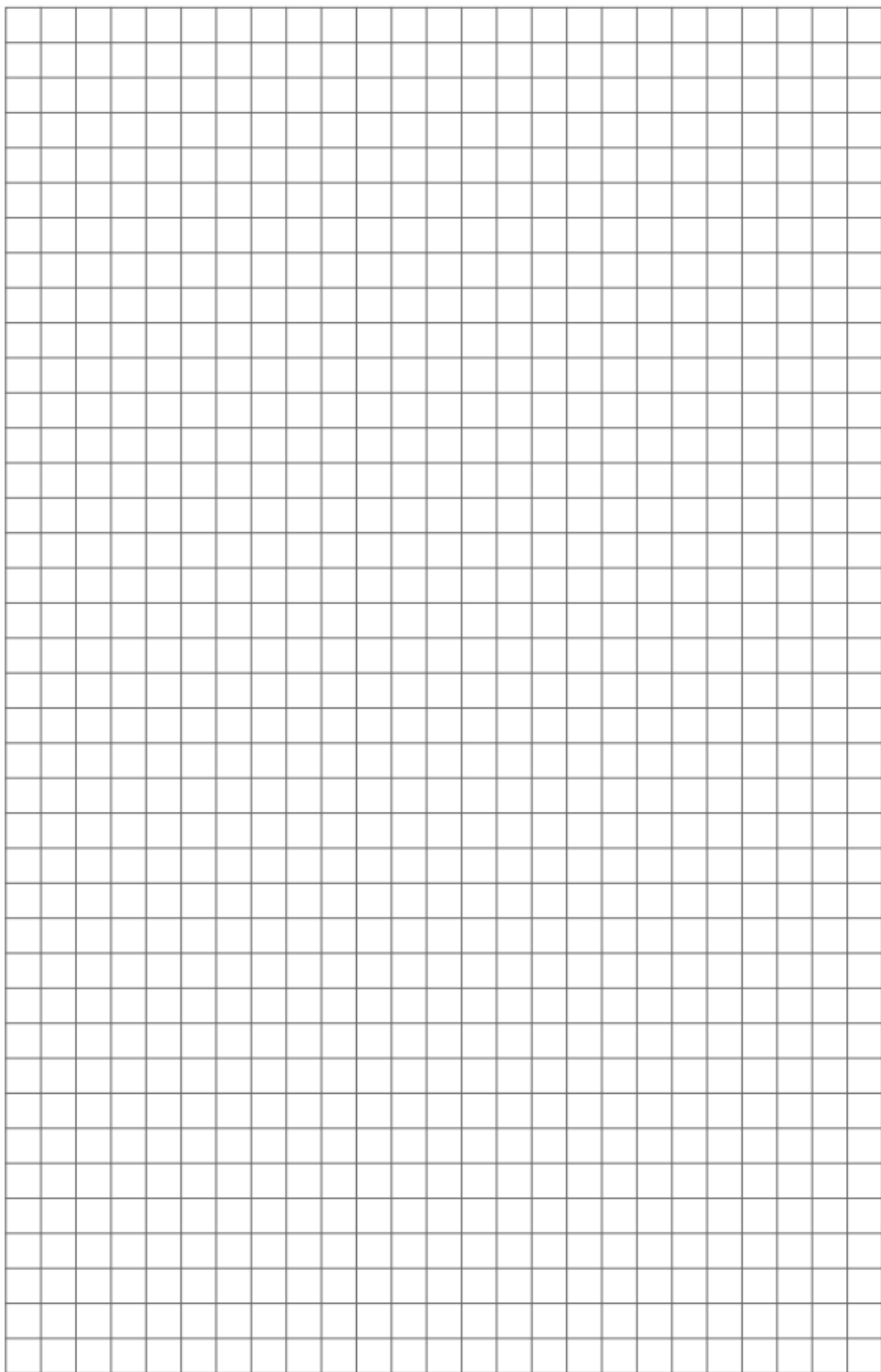
$$50 \overline{)6981}$$

$$67 \overline{)2450}$$

$$81 \overline{)4938}$$

$$82 \overline{)9857}$$

$$76 \overline{)2872}$$



Problem Solving and Reasoning

Explain it!



Which calculation could be the odd one out below?

- $512 \div 16 =$
- $672 \div 21 =$
- $928 \div 29 =$
- $792 \div 24 =$

Explain why.

Use it!



Explain the mistake

$$746 \div 16 =$$

Explain it!



$$\begin{array}{r} 41 \\ 16 \overline{)746} \\ \underline{-64} \\ 106 \\ \underline{-106} \\ 0 \end{array}$$

Convince me!



Here are six 4-digit numbers.

$4,455$ $4,545$ $4,554$
 $5,445$ $5,454$ $5,544$

Which number fits the clues below?

- When divided by 5, there is a remainder of 4
- When divided by 3, the digit total of the answer is the same as the digit total of the number being divided

Answers

$$\begin{array}{r} 101r10 \\ 66 \overline{)6676} \\ \underline{66} \\ 076 \\ \underline{66} \\ 10 \end{array}$$

$$\begin{array}{r} 230r9 \\ 23 \overline{)5299} \\ \underline{46} \\ 69 \\ \underline{69} \\ 09 \end{array}$$

$$\begin{array}{r} 55r23 \\ 44 \overline{)2443} \\ \underline{220} \\ 243 \\ \underline{220} \\ 23 \end{array}$$

$$\begin{array}{r} 67r49 \\ 52 \overline{)3533} \\ \underline{312} \\ 413 \\ \underline{364} \\ 49 \end{array}$$

$$\begin{array}{r} 232r11 \\ 33 \overline{)7667} \\ \underline{66} \\ 106 \\ \underline{99} \\ 77 \\ \underline{66} \\ 11 \end{array}$$

$$\begin{array}{r} 38r53 \\ 65 \overline{)2523} \\ \underline{195} \\ 573 \\ \underline{520} \\ 53 \end{array}$$

$$\begin{array}{r} 132R13 \\ 70 \overline{)9253} \end{array}$$

$$\begin{array}{r} 68R54 \\ 56 \overline{)3862} \end{array}$$

$$\begin{array}{r} 123R45 \\ 54 \overline{)6687} \end{array}$$

$$\begin{array}{r} 139R31 \\ 50 \overline{)6981} \end{array}$$

512 - 16 = 32
672 - 21 = 32
928 - 29 = 32
792 - 24 = 33

Possible answers:
928 - 29 is the odd one out because it is the only 3-digit number without a 2 in the ones column.

792 - 24 is the odd one out because it does not have the answer 32

Instead of writing 10 lots of 16 as 160 they have written 10 lots of 16 as 106
This is therefore the mistake in the calculation.

$$\begin{array}{r} 36R38 \\ 67 \overline{)2450} \end{array}$$

$$\begin{array}{r} 60R78 \\ 81 \overline{)4938} \end{array}$$

$$\begin{array}{r} 120R17 \\ 82 \overline{)9857} \end{array}$$

$$\begin{array}{r} 37R60 \\ 76 \overline{)2872} \end{array}$$

The first clue cancels out any multiple of 5 so we are left with:
4,554
5,454
5,544

When divided by 3 the answers are:
4,554 ÷ 3 = 1,518
5,454 ÷ 3 = 1,818
5,544 ÷ 3 = 1,848

5,454 has a digit total of 18 and so does 1,818 therefore the answer is 5,454