

Notes

Year 4

Multiplication and Division

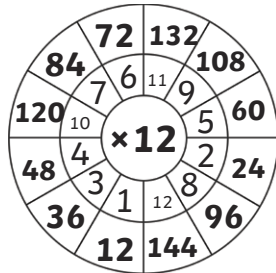
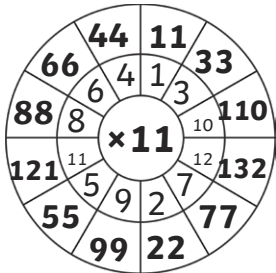
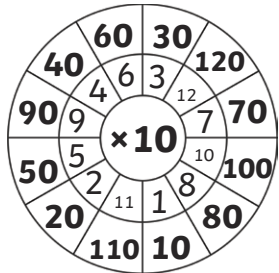
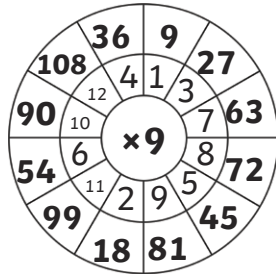
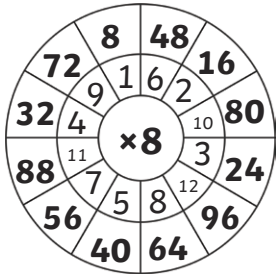
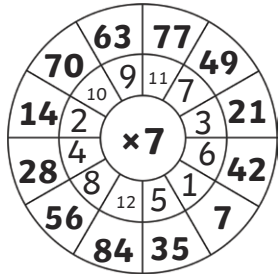
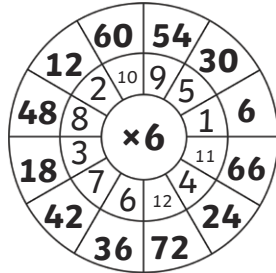
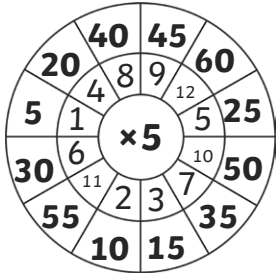
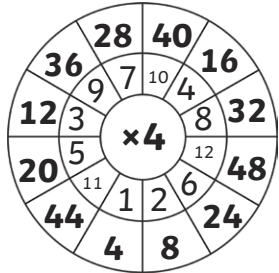
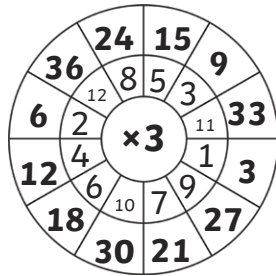
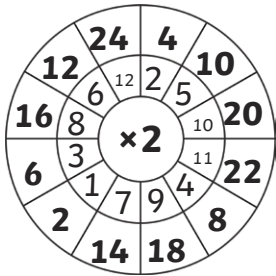
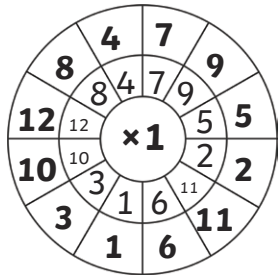
Maths Home Learning Activity Booklet

Answers



Multiplication Wheels

Multiply the numbers by the middle number.



Problems Involving Scaling Worksheet

question	answer
1	£5.40
2	51cm
3	200g
4	48 squares
5	80 squares
6	£5.31
7	£68
8	100ml

Correspondence Type Word Problems:

question	answer
1	72
2	25 possible combinations
3	7
4	20
5	Multiple possible answers: e.g. 50 cars and 25 bikes = $50 \times 4 + 25 \times 2 = 250$
6	$90 + 10 + 9 + 8 + 7 + 6 + 5 + 4 + 3 + 2 + 1 = 145\text{cm}$
7	Multiple possible answers: e.g. Raju + Sunnah = 35 Triplets = 3 $35 \times 2 + 3 \times 3 = 79$
8	12 possible combinations

Multiplying Three Numbers

1. $2 \times 1 \times 2 =$	4	2. $3 \times 2 \times 3 =$	18
3. $3 \times 0 \times 3 =$	0	4. $4 \times 3 \times 2 =$	24
5. $4 \times 3 \times 4 =$	48	6. $5 \times 4 \times 5 =$	100
7. $2 \times 8 \times 2 =$	32	8. $2 \times 7 \times 4 =$	56
9. $5 \times 2 \times 4 =$	40	10. $1 \times 3 \times 9 =$	27
11. $2 \times 4 \times 8 =$	64	12. $2 \times 3 \times 9 =$	54
13. $9 \times 2 \times 5 =$	90	14. $2 \times 2 \times 9 =$	36
15. $4 \times 4 \times 4 =$	64	16. $3 \times 3 \times 3 =$	27
17. $6 \times 2 \times 6 =$	72	18. $7 \times 1 \times 2 =$	14
19. $4 \times 2 \times 8 =$	64	20. $10 \times 2 \times 3 =$	60

Multiplying by 1 and 0 and Dividing by 1

question	answer	question	answer														
A.																	
1	12	10	31														
2	82	11	0														
3	0	12	0														
4	25	13	50														
5	342	14	50														
6	212	15	3983														
7	0	16	26														
8	1	17	1														
9	0	18	0														
B.																	
1	72 ÷ 1 = 72																
2	79 × 1 = 79																
3	65 × 0 = 0																
C.																	
	<table border="1"> <thead> <tr> <th>Beginning Number</th> <th>÷1</th> <th>×1</th> <th>×0</th> <th>÷1</th> <th>Ending Number</th> </tr> </thead> <tbody> <tr> <td>32</td> <td>32</td> <td>32</td> <td>0</td> <td>0</td> <td>0</td> </tr> </tbody> </table>					Beginning Number	÷1	×1	×0	÷1	Ending Number	32	32	32	0	0	0
Beginning Number	÷1	×1	×0	÷1	Ending Number												
32	32	32	0	0	0												
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Beginning Number	÷1	×1	×1	×0	Ending Number												
1	1	1	1	0	0												
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Beginning Number	×1	÷1	×1	÷1	Ending Number												
10 000	10 000	10 000	10 000	10 000	10 000												

$$\begin{array}{r} 19. \quad 271 \\ \times \quad 5 \\ \hline 1355 \end{array}$$

$$\begin{array}{r} 20. \quad 834 \\ \times \quad 4 \\ \hline 3336 \end{array}$$

$$\begin{array}{r} 21. \quad 352 \\ \times \quad 3 \\ \hline 1056 \end{array}$$

$$\begin{array}{r} 22. \quad 742 \\ \times \quad 3 \\ \hline 2226 \end{array}$$

$$\begin{array}{r} 23. \quad 185 \\ \times \quad 4 \\ \hline 740 \end{array}$$

$$\begin{array}{r} 24. \quad 400 \\ \times \quad 3 \\ \hline 1200 \end{array}$$

$$\begin{array}{r} 25. \quad 169 \\ \times \quad 2 \\ \hline 338 \end{array}$$

$$\begin{array}{r} 26. \quad 576 \\ \times \quad 6 \\ \hline 3456 \end{array}$$

$$\begin{array}{r} 27. \quad 136 \\ \times \quad 5 \\ \hline 680 \end{array}$$

$$\begin{array}{r} 28. \quad 482 \\ \times \quad 3 \\ \hline 1446 \end{array}$$

$$\begin{array}{r} 29. \quad 506 \\ \times \quad 3 \\ \hline 1518 \end{array}$$

$$\begin{array}{r} 30. \quad 411 \\ \times \quad 5 \\ \hline 2055 \end{array}$$

$$\begin{array}{r} 31. \quad 749 \\ \times \quad 6 \\ \hline 4494 \end{array}$$

$$\begin{array}{r} 32. \quad 146 \\ \times \quad 2 \\ \hline 292 \end{array}$$

$$\begin{array}{r} 33. \quad 822 \\ \times \quad 2 \\ \hline 1644 \end{array}$$

$$\begin{array}{r} 34. \quad 673 \\ \times \quad 2 \\ \hline 1346 \end{array}$$

$$\begin{array}{r} 35. \quad 907 \\ \times \quad 5 \\ \hline 4535 \end{array}$$

$$\begin{array}{r} 36. \quad 129 \\ \times \quad 2 \\ \hline 258 \end{array}$$

$$\begin{array}{r} 37. \quad 883 \\ \times \quad 2 \\ \hline 1766 \end{array}$$

$$\begin{array}{r} 38. \quad 861 \\ \times \quad 4 \\ \hline 3444 \end{array}$$

$$\begin{array}{r} 39. \quad 854 \\ \times \quad 6 \\ \hline 5124 \end{array}$$

$$\begin{array}{r} 40. \quad 645 \\ \times \quad 5 \\ \hline 3225 \end{array}$$

Multiplying 3-Digit by 1-Digit Numbers

$$\begin{array}{r} 1. \quad 214 \\ \times \quad 4 \\ \hline 856 \end{array}$$

$$\begin{array}{r} 2. \quad 301 \\ \times \quad 4 \\ \hline 1204 \end{array}$$

$$\begin{array}{r} 3. \quad 825 \\ \times \quad 6 \\ \hline 4950 \end{array}$$

$$\begin{array}{r} 4. \quad 656 \\ \times \quad 5 \\ \hline 3280 \end{array}$$

$$\begin{array}{r} 5. \quad 540 \\ \times \quad 3 \\ \hline 1620 \end{array}$$

$$\begin{array}{r} 6. \quad 978 \\ \times \quad 5 \\ \hline 4890 \end{array}$$

$$\begin{array}{r} 7. \quad 216 \\ \times \quad 2 \\ \hline 432 \end{array}$$

$$\begin{array}{r} 8. \quad 209 \\ \times \quad 4 \\ \hline 836 \end{array}$$

$$\begin{array}{r} 9. \quad 966 \\ \times \quad 4 \\ \hline 3864 \end{array}$$

$$\begin{array}{r} 10. \quad 345 \\ \times \quad 3 \\ \hline 1035 \end{array}$$

$$\begin{array}{r} 11. \quad 146 \\ \times \quad 4 \\ \hline 584 \end{array}$$

$$\begin{array}{r} 12. \quad 938 \\ \times \quad 2 \\ \hline 1876 \end{array}$$

$$\begin{array}{r} 13. \quad 676 \\ \times \quad 5 \\ \hline 3380 \end{array}$$

$$\begin{array}{r} 14. \quad 278 \\ \times \quad 3 \\ \hline 834 \end{array}$$

$$\begin{array}{r} 15. \quad 159 \\ \times \quad 3 \\ \hline 477 \end{array}$$

$$\begin{array}{r} 16. \quad 846 \\ \times \quad 4 \\ \hline 3384 \end{array}$$

$$\begin{array}{r} 17. \quad 536 \\ \times \quad 4 \\ \hline 2144 \end{array}$$

$$\begin{array}{r} 18. \quad 365 \\ \times \quad 2 \\ \hline 730 \end{array}$$

Multiplying Mentally Using Known Facts

$$6 \times 2 = 12$$

$$6 \times 5 = 30$$

$$4 \times 6 = 24$$

$$4 \times 11 = 44$$

$$3 \times 8 = 24$$

$$8 \times 4 = 32$$

$$7 \times 9 = 63$$

$$12 \times 10 = 120$$

$$3 \times 4 = 12$$

$$8 \times 7 = 56$$

$$3 \times 8 = 24$$

$6 \times 20 =$ 120	$40 \times 11 =$ 440	$6 \times 50 =$ 300	$40 \times 6 =$ 240	$3 \times 80 =$ 240
$80 \times 4 =$ 320	$7 \times 90 =$ 630	$120 \times 10 =$ 1200	$3 \times 40 =$ 120	$80 \times 7 =$ 560
$600 \times 2 =$ 1200	$4 \times 1100 =$ 4400	$600 \times 5 =$ 3000	$4 \times 600 =$ 2400	$300 \times 8 =$ 2400
$8 \times 400 =$ 3200	$700 \times 9 =$ 6300	$12 \times 1000 =$ 12000	$300 \times 4 =$ 1200	$8 \times 700 =$ 5600
$60 \times 20 =$ 1200	$40 \times 110 =$ 4400	$60 \times 50 =$ 3000	$40 \times 60 =$ 2400	$30 \times 80 =$ 2400
$80 \times 40 =$ 3200	$70 \times 90 =$ 6300	$120 \times 100 =$ 12000	$30 \times 40 =$ 1200	$80 \times 70 =$ 5600

Dividing Mentally Using Known Facts

$$24 \div 6 = 4$$

$$36 \div 9 = 4$$

$$21 \div 3 = 7$$

$$42 \div 6 = 7$$

$$18 \div 6 = 3$$

$$48 \div 8 = 6$$

$$54 \div 6 = 9$$

$$49 \div 7 = 7$$

$$36 \div 6 = 6$$

$$28 \div 4 = 7$$

$$210 \div 3 = 70$$

Missing Numbers 2-Digit \times 1-Digit Multiplication

Question	Answer
1	6, 4
2	1
3	1, 6
4	4, 5
5	0
6	9, 5
7	2
8	7
9	5, 4
10	1, 3
11	1
12	6
13	2
14	1
15	9
16	1, 4
17	8, 4
18	5
19	2
20	9, 4

Question	Answer
21	2
22	9, 3
23	4
24	1
25	5, 2
26	1, 6
27	3, 5
28	7
29	8
30	8, 5
31	4
32	5, 2
33	9
34	3
35	7, 5
36	4, 2
37	2
38	5
39	2, 6
40	4

Three Digit × One Digit Multiplication

question	answer
1	501
2	411
3	1044
4	957
5	3145
6	2502
7	1170
8	5553
9	972

The Commutative Law of Multiplication

In most cases it is better to multiply the larger by the smaller so $17 \times 4 = 68$; however children may justify why they keep the 5 at the beginning of the calculation e.g. 5×27 because they know that $5 \times 20 = 100$.

$$17 \times 4 = 68 \quad 8 \times 21 = 168 \quad 28 \times 8 = 224 \quad 21 \times 5 = 105$$

$$3 \times 24 = 72 \quad 3 \times 18 = 54 \quad 7 \times 17 = 119 \quad 8 \times 26 = 208$$

$$5 \times 17 = 85 \quad 28 \times 9 = 252 \quad 15 \times 8 = 120 \quad 9 \times 24 = 216$$

$$29 \times 6 = 174 \quad 2 \times 15 = 30 \quad 5 \times 27 = 135 \quad 7 \times 29 = 203$$

$$4 \times 18 = 72 \quad 12 \times 4 = 48 \quad 3 \times 24 = 72 \quad 27 \times 6 = 162$$

$$7 \times 11 = 77 \quad 29 \times 5 = 145 \quad 17 \times 3 = 51 \quad 5 \times 17 = 85$$

$$19 \times 3 = 57 \quad 7 \times 27 = 189 \quad 4 \times 14 = 56$$

$$7 \times 30 = 210 \quad 4 \times 29 = 116 \quad 6 \times 24 = 144$$

The Commutative Law of Multiplication

question	answer
1	$2 \times 5 \times 12 = 10 \times 12 = 120$
2	$13 \times 2 \times 2 = 26 \times 2 = 52$
3	$5 \times 4 \times 10 = 20 \times 10 = 200$
4	$5 \times 2 \times 5 = 10 \times 5 = 50$
5	$5 \times 5 \times 4 = 25 \times 4 = 100$
6	$5 \times 12 \times 10 = 60 \times 10 = 600$
7	$5 \times 2 \times 14 = 10 \times 14 = 140$
8	$0 \times 13 \times 7 = 0 \times 7 = 0$
9	$2 \times 2 \times 2 \times 11 = 8 \times 11 = 88$
10	$10 \times 10 \times 136 = 100 \times 136 = 13\,600$
11	$2 \times 5 \times 3 \times 4 \times 1 = 10 \times 3 \times 4 \times 1 = 10 \times 12 \times 1 = 120$

Multiplying Two-Digit Numbers by One-Digit Numbers

$$\begin{array}{r} 1. \quad 24 \\ \times \quad 4 \\ \hline 96 \end{array}$$

$$\begin{array}{r} 2. \quad 22 \\ \times \quad 5 \\ \hline 110 \end{array}$$

$$\begin{array}{r} 3. \quad 18 \\ \times \quad 5 \\ \hline 90 \end{array}$$

$$\begin{array}{r} 4. \quad 26 \\ \times \quad 3 \\ \hline 78 \end{array}$$

$$\begin{array}{r} 5. \quad 12 \\ \times \quad 5 \\ \hline 60 \end{array}$$

$$\begin{array}{r} 6. \quad 48 \\ \times \quad 2 \\ \hline 96 \end{array}$$

$$\begin{array}{r} 7. \quad 41 \\ \times \quad 9 \\ \hline 369 \end{array}$$

$$\begin{array}{r} 8. \quad 31 \\ \times \quad 7 \\ \hline 217 \end{array}$$

$$\begin{array}{r} 9. \quad 44 \\ \times \quad 7 \\ \hline 308 \end{array}$$

$$\begin{array}{r} 10. \quad 32 \\ \times \quad 7 \\ \hline 224 \end{array}$$

$$\begin{array}{r} 11. \quad 62 \\ \times \quad 3 \\ \hline 186 \end{array}$$

$$\begin{array}{r} 12. \quad 66 \\ \times \quad 4 \\ \hline 264 \end{array}$$

$$\begin{array}{r} 13. \quad 82 \\ \times \quad 4 \\ \hline 328 \end{array}$$

$$\begin{array}{r} 14. \quad 87 \\ \times \quad 8 \\ \hline 696 \end{array}$$

$$\begin{array}{r} 15. \quad 94 \\ \times \quad 8 \\ \hline 752 \end{array}$$

$$\begin{array}{r} 16. \quad 53 \\ \times \quad 8 \\ \hline 424 \end{array}$$

$$\begin{array}{r} 17. \quad 85 \\ \times \quad 4 \\ \hline 340 \end{array}$$

$$\begin{array}{r} 18. \quad 75 \\ \times \quad 3 \\ \hline 225 \end{array}$$

$$\begin{array}{r} 19. \quad 68 \\ \times \quad 6 \\ \hline 408 \end{array}$$

$$\begin{array}{r} 20. \quad 78 \\ \times \quad 7 \\ \hline 546 \end{array}$$