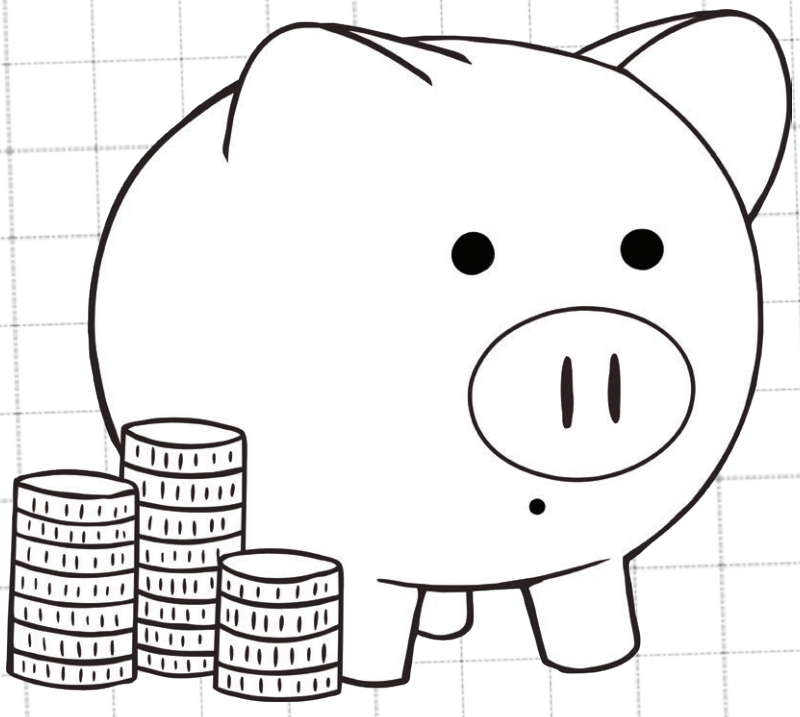
Multiplication and Division

Learning From Home



Workbook

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Year 5 Programme of Study

Multiplication and Division

Statutory Requirements	Activity Sheet
Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.	**Common Factors**
Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers.	**Finding Prime Factors**
Establish whether a number up to 100 is prime and recall prime numbers up to 19.	**Identifying Prime Numbers to 100** **Recalling Prime Numbers 0-19**
Multiply numbers up to 4 digits by a one or 2-digit number using a formal written method, including long multiplication for 2-digit numbers.	**Long Multiplication Practice – 3 Digits × 2 Digits** **Long Multiplication Practice – 4 Digits × 2 Digits** **Multiplication Grids**
Multiply and divide numbers mentally drawing upon known facts.	**Halving to Divide by 4, 8 and 16** **Doubling to Multiply by 4, 8 and 16** **Dividing Multiples of 10 by 1-Digit Numbers** **Dividing Multiples of 10** **Multiplying Multiples of 10 by 1-Digit Numbers**
Divide numbers up to 4 digits by a 1-digit number using the formal written method of short division and interpret remainders appropriately for the context.	**Short Division** **Short Division Practice 4 Digits Divided By One Digit** **Division Word Problems – Interpreting Answers**
Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.	**Multiplying Whole Numbers by 10** **Multiplying and Dividing by 100 and 1000** **Dividing Whole Numbers by 10**
Recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3).	**Using and Recognising Square and Cube Numbers**
Solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes.	**Missing Number Multiplication and Division** **Crack the Code with Factors, Multiples, Square Numbers and Cube Numbers**
Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign.	**Solving Problems Involving an Understanding of Equals** **Understanding the Equals Sign**

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Common Factors

Can you find the common factors of the following pairs of number?

1. 3 5

The common factors are: _____

2. 8 40

The common factors are: _____

3. 30 12

The common factors are: _____

4. 21 42

The common factors are: _____

5. 50 20

The common factors are: _____

6. 16 44

The common factors are: _____

7. 99 36

The common factors are: _____

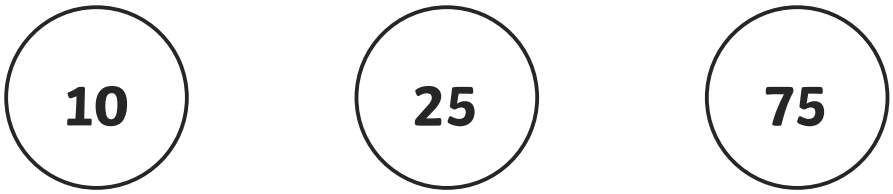
8. 24 108

The common factors are: _____

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Can you find the common factors of the following trios of number?

1.



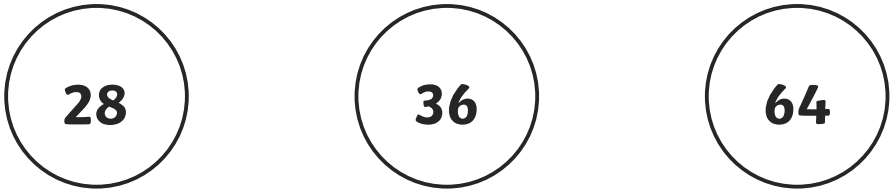
The common factors are: _____

2.



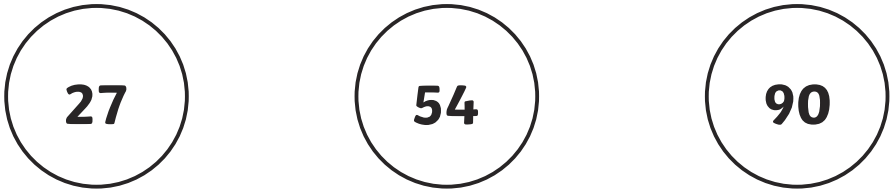
The common factors are: _____

3.



The common factors are: _____

4.



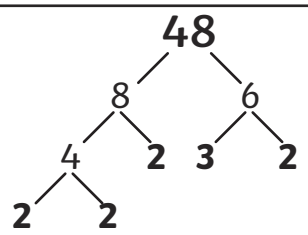
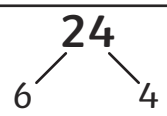
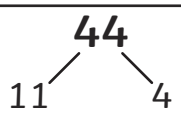
The common factors are: _____

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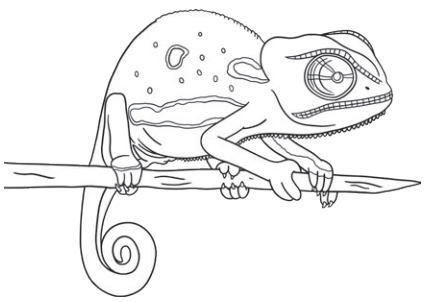
Finding Prime Factors

Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers.

Every number has a unique set of prime factors. (Prime numbers can be multiplied together to make the number.) These can be found using a "Factor Tree". Find any factors of the number, then the factors of those numbers until you can't go any further – the resulting numbers will be the prime factors.

A. 	B. 	C. 
$2 \times 2 \times 2 \times 3 \times 2 = 48$		
D. **42**	E. **60**	F. **88**
G. **96**	H. **72**	I. **105**

Try a larger number!



J. **462**

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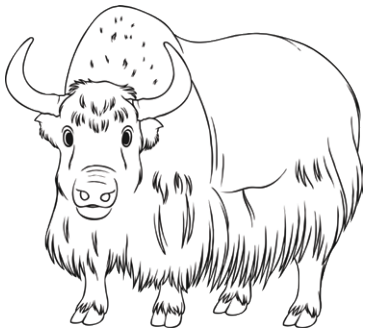
Identifying Prime Numbers to 100

Establish whether a number up to 100 is prime and recall prime numbers up to 19.

Use any method you wish to find all the prime numbers between **0 and 100**, and then check your answers. Did you make any mistakes? Can you see where you went wrong?

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Don't forget that not all odd numbers are prime numbers – use your times table knowledge to help you!



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Recalling Prime Numbers 0-19

Establish whether a number up to 100 is prime and recall prime numbers up to 19.

Knowing the first few prime numbers can give you a real advantage when answering questions and calculating prime factors. Complete this sheet to deepen your familiarisation.

Allow yourself some time to look at the prime numbers. Look carefully for the odd numbers which are missing and think about why. When you are ready fold the sheet over on the fold line and complete the tasks below...

2, 3, 5, 7, 11, 13, 17, 19

A. Write out the prime numbers between 0-19 with your weaker hand!

B. Write the prime numbers out in descending order (highest to lowest).

C. Which three prime numbers are missing?

13, 7, 19, 2, 5, _____ , _____ , _____

D. Circle the prime numbers.

six fifteen one 19 nine thirteen

17 15 7

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Long Multiplication Practice – 3 Digits × 2 Digits

1.

		1	6	1
×			2	3

2.

		2	3	2
×			2	6

3.

		6	1	4
×			1	8

4.

		9	6	9
×			9	5

5.

		7	4	0
×			9	6

6.

		3	6	2
×			5	8

7.

		3	0	5
×			7	1

8.

		3	7	0
×			6	4

9.

		5	8	4
×			1	5

10.

		8	5	1
×			8	9

11.

		7	4	9
×			9	8

12.

		4	8	2
×			2	3

13.

			7	0
×				3

14.

		7	0	9
×			1	7

15.

		9	1	4
×			5	7

16.

		7	1	8
×			4	5

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Long Multiplication Practice – 4 Digits × 2 Digits

1.

		2	1	9	0
×				6	9

2.

		1	3	4	2
×				5	2

3.

		1	5	2	1
×				7	3

4.

		1	1	4	3
×				3	4

5.

		2	4	6	8
×				2	7

6.

		1	8	9	5
×				4	6

7.

		1	4	6	2
×				7	0

8.

		1	2	3	9
×				1	9

9.

		1	3	5	9
×				7	7

10.

		2	1	2	7
×				4	8

11.

		1	9	2	0
×				1	2

12.

		2	2	9	1
×				4	0

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Multiplication Grids

Multiplying 4-Digit Numbers by 1-Digit Numbers Using the Grid Method

1.

×	6000	100	30	9
7				

2.

×	6000	900	70	5
3				

3.

×	8000	200	80	3
5				

4.

×	5000	600	20	0
5				

5.

×	2000	400	00	7
9				

6.

×	3000	900	20	2
5				

7.

×	3000	300	40	9
7				

8.

×	8000	400	80	2
5				

9.

×	1000	900	40	5
7				

10.

×	5000	800	50	6
5				

1. 6586 × 5 =
2. 6682 × 9 =
3. 9870 × 4 =
4. 1476 × 4 =
5. 4217 × 7 =
6. 1815 × 6 =
7. 8292 × 8 =
8. 8940 × 8 =
9. 5512 × 5 =
10. 9706 × 8 =

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Halving to Divide by 4, 8 and 16

Halve the starting number each time to divide the starting number by 4, 8 or 16.

	halve (÷2)	÷4	÷8	÷16
848				
864				
224				
1488				
784				
192				
1072				
480				
528				
320				
3392				
15 344				
13 264				
15 264				
10 768				
3376				
7936				
12 288				
10 448				
3952				
107 216				
39 296				
126 480				

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Doubling to Multiply by 4, 8 and 16

Double the previous number each time to multiply the starting number by 4, 8 or 16.

	Double (×2)	×4	×8	×16
21				
76				
63				
58				
92				
85				
91				
95				
40				
47				
157				
311				
959				
341				
174				
724				
532				
975				
731				
826				
1818				
4759				
1369				

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Dividing Multiples of 10 by 1-Digit Numbers

1. 250 ÷ 5 = ☐
2. 100 ÷ 5 = ☐
3. 80 ÷ 1 = ☐
4. 720 ÷ 8 = ☐
5. 180 ÷ 9 = ☐
6. 70 ÷ 1 = ☐
7. 420 ÷ 6 = ☐
8. 60 ÷ 6 = ☐
9. 200 ÷ 4 = ☐
10. 270 ÷ 3 = ☐
11. 450 ÷ 5 = ☐
12. 60 ÷ 3 = ☐
13. 240 ÷ 8 = ☐
14. 300 ÷ 6 = ☐
15. 150 ÷ 5 = ☐
16. 50 ÷ 1 = ☐
17. 200 ÷ 4 = ☐
18. 120 ÷ 2 = ☐
19. 60 ÷ 3 = ☐
20. 180 ÷ 3 = ☐
21. 200 ÷ 5 = ☐
22. 90 ÷ 3 = ☐
23. 250 ÷ 5 = ☐
24. 630 ÷ 7 = ☐
25. 120 ÷ 6 = ☐
26. 560 ÷ 8 = ☐
27. 40 ÷ 4 = ☐
28. 160 ÷ 8 = ☐
29. 810 ÷ 9 = ☐
30. 40 ÷ 4 = ☐

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Dividing Multiples of 10

1. $4000 \div 50 =$ ☐
2. $3600 \div 60 =$ ☐
3. $1800 \div 90 =$ ☐
4. $400 \div 20 =$ ☐
5. $1000 \div 20 =$ ☐
6. $1600 \div 20 =$ ☐
7. $1400 \div 70 =$ ☐
8. $1800 \div 60 =$ ☐
9. $1800 \div 90 =$ ☐
10. $2500 \div 50 =$ ☐
11. $4500 \div 90 =$ ☐
12. $1800 \div 60 =$ ☐
13. $300 \div 10 =$ ☐
14. $2800 \div 70 =$ ☐
15. $1000 \div 50 =$ ☐
16. $1200 \div 30 =$ ☐
17. $1200 \div 60 =$ ☐
18. $4500 \div 90 =$ ☐
19. $1600 \div 20 =$ ☐
20. $400 \div 10 =$ ☐
21. $1200 \div 60 =$ ☐
22. $2400 \div 80 =$ ☐
23. $2400 \div 60 =$ ☐
24. $1000 \div 20 =$ ☐
25. $3200 \div 80 =$ ☐
26. $2400 \div 80 =$ ☐
27. $600 \div 20 =$ ☐
28. $900 \div 30 =$ ☐
29. $600 \div 30 =$ ☐
30. $8100 \div 90 =$ ☐

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Multiplying Multiples of 10 by 1-Digit Numbers

1. $80 \times 7 =$ ☐
2. $10 \times 8 =$ ☐
3. $70 \times 1 =$ ☐
4. $50 \times 3 =$ ☐
5. $70 \times 5 =$ ☐
6. $50 \times 5 =$ ☐
7. $70 \times 7 =$ ☐
8. $60 \times 2 =$ ☐
9. $20 \times 8 =$ ☐
10. $90 \times 2 =$ ☐
11. $30 \times 2 =$ ☐
12. $60 \times 5 =$ ☐
13. $50 \times 2 =$ ☐
14. $70 \times 9 =$ ☐
15. $50 \times 6 =$ ☐
16. $30 \times 2 =$ ☐
17. $90 \times 3 =$ ☐
18. $80 \times 1 =$ ☐
19. $70 \times 8 =$ ☐
20. $60 \times 2 =$ ☐
21. $80 \times 3 =$ ☐
22. $40 \times 7 =$ ☐
23. $10 \times 2 =$ ☐
24. $60 \times 3 =$ ☐
25. $10 \times 2 =$ ☐
26. $30 \times 9 =$ ☐
27. $10 \times 4 =$ ☐
28. $40 \times 2 =$ ☐
29. $80 \times 7 =$ ☐
30. $30 \times 3 =$ ☐

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Multiplying Multiples of 10 by 1-Digit Numbers

1. $40 \times 8 =$ ☐
2. $20 \times 5 =$ ☐
3. $70 \times 2 =$ ☐
4. $60 \times 4 =$ ☐
5. $80 \times 4 =$ ☐
6. $20 \times 7 =$ ☐
7. $80 \times 7 =$ ☐
8. $40 \times 9 =$ ☐
9. $20 \times 8 =$ ☐
10. $60 \times 2 =$ ☐
11. $90 \times 2 =$ ☐
12. $80 \times 5 =$ ☐
13. $70 \times 2 =$ ☐
14. $60 \times 9 =$ ☐
15. $20 \times 6 =$ ☐
16. $50 \times 3 =$ ☐
17. $50 \times 5 =$ ☐
18. $70 \times 8 =$ ☐
19. $30 \times 8 =$ ☐
20. $30 \times 7 =$ ☐
21. $20 \times 3 =$ ☐
22. $80 \times 4 =$ ☐
23. $20 \times 2 =$ ☐
24. $30 \times 6 =$ ☐
25. $20 \times 2 =$ ☐
26. $80 \times 9 =$ ☐
27. $70 \times 4 =$ ☐
28. $90 \times 5 =$ ☐
29. $10 \times 7 =$ ☐
30. $90 \times 3 =$ ☐

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Short Division

1.

2	4	1				

2.

8	2	5	7			

3.

9	3	9	9			

4.

5	2	1	4			

5.

7	5	4	5			

6.

9	8	6	7			

7.

5	4	3	3			

8.

5	1	3	7			

9.

7	4	3	9			

10.

8	4	8	9			

11.

1	1	3	4	2		

12.

1	2	2	9	8		

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Short Division Practice 4 Digits Divided By 1 Digit

Divide the numbers up to four digits by a one-digit number using the formal written method of short division. Some of the answers will have a remainder.

1. 2 | 2 9 5 2

2. 4 | 6 8 0 8

3. 4 | 9 6 7 2

4. 6 | 9 7 9 2

5. 8 | 5 0 9 6

6. 9 | 1 3 3 2

7. 8 | 9 6 8 8

8. 5 | 3 4 6 2

9. 4 | 7 6 4 3

10. 7 | 6 9 2 1

11. 9 | 4 5 3 2

12. 3 | 8 6 5 3

13. 7 | 3 4 3 6

14. 9 | 6 4 3 7



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Division Word Problems – Interpreting Answers

Divide numbers up to four digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context.

Complete the necessary calculation, and then decide if your answer needs to be rounded up or down.

1. Each glass of fresh apple juice made at the café requires the juice of four apples. If they have 391 apples, how many full glasses of juice can they make?

Answer:

2. Bilal and Georgina are planting seeds. They have 863 to plant and they decide to plant eight in each pot. How many pots will they need altogether?

Answer:

2. It's a busy night at the hostel – beds are arranged four to a room and there are 279 guests wishing to stay. How many rooms will the hotel need to ensure everyone gets a bed?

Answer:

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4. A factory produces 3361 chocolate cookies per day. If there are nine cookies in each packet, how many full packets will they be able to make?

Answer:

5. Aimee and Lucy want to make bracelets for everyone. They need nine big rubber bands to make each bracelet. They buy a box containing 1390 bands. How many friends can they make bracelets for?

Answer:

6. Each dragon boat team consists of nine members and each member must have two oars. If there are a total of 1561 oars on the river bank, how many dragon boat teams can be made?

Answer:

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Multiplying Whole Numbers by 10

1. $82 \times 10 =$ ☐
2. $66 \times 10 =$ ☐
3. $14 \times 10 =$ ☐
4. $58 \times 10 =$ ☐
5. $42 \times 10 =$ ☐
6. $56 \times 10 =$ ☐
7. $63 \times 10 =$ ☐
8. $42 \times 10 =$ ☐
9. $54 \times 10 =$ ☐
10. $93 \times 10 =$ ☐
11. $60 \times 10 =$ ☐
12. $53 \times 10 =$ ☐
13. $32 \times 10 =$ ☐
14. $79 \times 10 =$ ☐
15. $37 \times 10 =$ ☐
16. $816 \times 10 =$ ☐
17. $711 \times 10 =$ ☐
18. $287 \times 10 =$ ☐
19. $224 \times 10 =$ ☐
20. $567 \times 10 =$ ☐
21. $302 \times 10 =$ ☐
22. $879 \times 10 =$ ☐
23. $440 \times 10 =$ ☐
24. $379 \times 10 =$ ☐
25. $231 \times 10 =$ ☐
26. $488 \times 10 =$ ☐
27. $507 \times 10 =$ ☐
28. $547 \times 10 =$ ☐
29. $319 \times 10 =$ ☐
30. $179 \times 10 =$ ☐

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Dividing Numbers by 10

1. 79 ÷ 10 = ☐
2. 87 ÷ 10 = ☐
3. 75 ÷ 10 = ☐
4. 23 ÷ 10 = ☐
5. 43 ÷ 10 = ☐
6. 26 ÷ 10 = ☐
7. 43 ÷ 10 = ☐
8. 39 ÷ 10 = ☐
9. 69 ÷ 10 = ☐
10. 13 ÷ 10 = ☐
11. 45 ÷ 10 = ☐
12. 98 ÷ 10 = ☐
13. 95 ÷ 10 = ☐
14. 71 ÷ 10 = ☐
15. 87 ÷ 10 = ☐
16. 779 ÷ 10 = ☐
17. 398 ÷ 10 = ☐
18. 761 ÷ 10 = ☐
19. 797 ÷ 10 = ☐
20. 427 ÷ 10 = ☐
21. 402 ÷ 10 = ☐
22. 224 ÷ 10 = ☐
23. 998 ÷ 10 = ☐
24. 354 ÷ 10 = ☐
25. 336 ÷ 10 = ☐
26. 276 ÷ 10 = ☐
27. 384 ÷ 10 = ☐
28. 901 ÷ 10 = ☐
29. 711 ÷ 10 = ☐
30. 943 ÷ 10 = ☐

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Multiplying and Dividing by 100 and 1000

Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.

Drive the lorries forward two spaces on a place value grid to multiply by 100 and three spaces to multiply them by 1000. Reverse them two spaces to divide by 100 and three spaces to divide them by 1000.

× 1000	× 100	
		12
		157
		1425
		4.5
		0.25

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	÷ 100	÷ 1000
18 000		
458 000		
7600		
950		
516		

Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones	●	Tenths	Hundredths	Thousandths

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Dividing Whole Numbers by 10

1. $820 \div 10 =$ ☐
2. $630 \div 10 =$ ☐
3. $170 \div 10 =$ ☐
4. $950 \div 10 =$ ☐
5. $210 \div 10 =$ ☐
6. $930 \div 10 =$ ☐
7. $560 \div 10 =$ ☐
8. $530 \div 10 =$ ☐
9. $440 \div 10 =$ ☐
10. $180 \div 10 =$ ☐
11. $340 \div 10 =$ ☐
12. $940 \div 10 =$ ☐
13. $230 \div 10 =$ ☐
14. $460 \div 10 =$ ☐
15. $150 \div 10 =$ ☐
16. $7200 \div 10 =$ ☐
17. $3680 \div 10 =$ ☐
18. $7950 \div 10 =$ ☐
19. $7410 \div 10 =$ ☐
20. $2800 \div 10 =$ ☐
21. $3030 \div 10 =$ ☐
22. $5520 \div 10 =$ ☐
23. $3650 \div 10 =$ ☐
24. $2290 \div 10 =$ ☐
25. $7450 \div 10 =$ ☐
26. $7650 \div 10 =$ ☐
27. $2680 \div 10 =$ ☐
28. $8610 \div 10 =$ ☐
29. $5070 \div 10 =$ ☐
30. $7300 \div 10 =$ ☐

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Using and Recognising Square and Cube Numbers

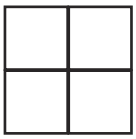
Recognise and use square numbers and cube numbers, and the notation for squared (^{2}) and cubed (^{3}).

Square Numbers

The product of a number multiplied by itself.

Can be illustrated as a square, e.g

2^2 = 2 squared = 2 × 2 = 4



A. Complete the table.

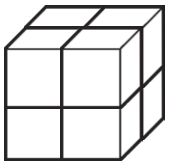
1^2	1 × 1	1
2^2		4
3^2	3 × 3	
	4 × 4	16
5^2		
		36
	7 × 7	
8^2		
10^2		100

Cube Numbers

The product of multiplying a digit by itself three times.

Can be illustrated as a cube, e.g.

2^3 = 2 cubed = 2 × 2 × 2 = 8



B. Complete the table.

1^3	1 × 1 × 1	1
2^3	2 × 2 × 2	
3^3		27
	4 × 4 × 4	64
5^3	5 × 5 × 5	
6^3	6 × 6× 6	
		343
8^3		512
	9 × 9 × 9	729
10^3		

C. Calculate the missing numbers.

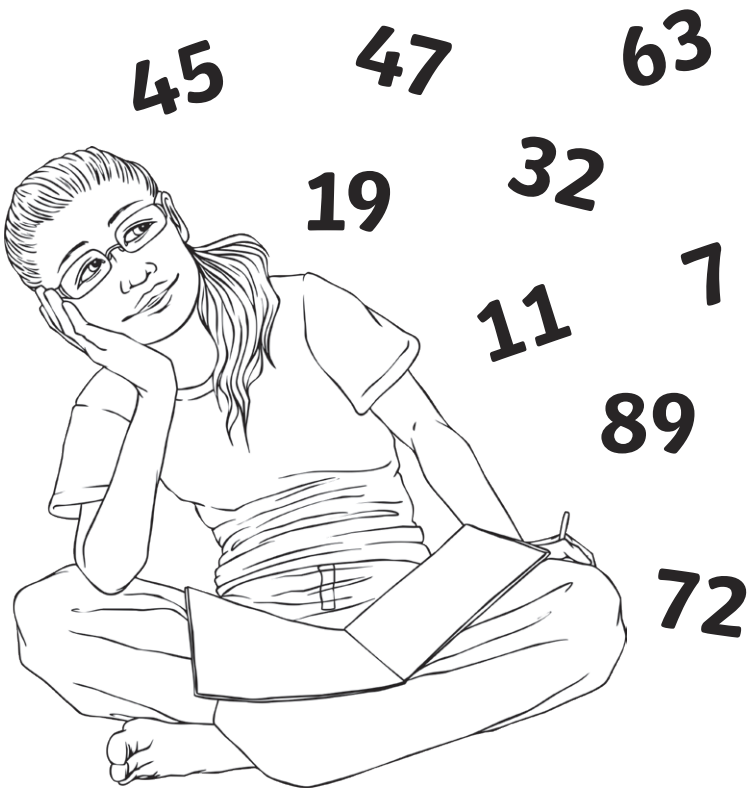
a) $7^2 + 4^3$ =	b) $8^2 + 10^2$ =	c) $5^3 - 5^2$ =
d) 5^2 + _____ = 89	e) _____ - 8^2 = 17	f) $3^2 \times 2^3$ =
g) 3^2 + _____ = 5^2	h) $6^3 \div 2^2$ =	i) 13^2 =
j) $10^3 - 2^2$ =	k) 100^2 =	l) _____^{2} = 144

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Missing Number Multiplication and Division

Estimate first, then calculate the missing number.

1. _____ × 3 = 2661
2. _____ ÷ 6 = 646
3. _____ ÷ 2 = 380
4. _____ × 3 = 2247
5. _____ × 2 = 1144
6. _____ ÷ 3 = 321
7. _____ × 4 = 2448
8. _____ ÷ 2 = 874
9. _____ ÷ 5 = 685
10. _____ × 4 = 1864
11. _____ ÷ 3 = 616
12. _____ × 7 = 4781
13. _____ ÷ 8 = 494
14. _____ × 4 = 1116
15. _____ ÷ 6 = 392
16. _____ ÷ 4 = 707
17. _____ × 6 = 22 812
18. _____ × 5 = 8460
19. _____ × 4 = 29 080
20. _____ × 9 = 10 287
21. _____ ÷ 2 = 1500
22. _____ × 7 = 55 965
23. _____ ÷ 9 = 2585
24. _____ ÷ 7 = 1659
25. _____ × 8 = 55 480
26. _____ × 2 = 8856
27. _____ ÷ 6 = 4251
28. _____ × 9 = 11 196
29. _____ ÷ 4 = 3493
30. _____ ÷ 7 = 6705



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Crack the Code with Factors, Multiples, Square Numbers and Cube Numbers

Solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes.

Each answer to the questions below will be a number. Match the number to a letter in the grid below. If your answers are correct, your letters will spell out a phrase.

1	2	3	4	5	6	7	8	9	10	11	12	13
A	B	C	D	E	F	G	H	I	J	K	L	M
14	15	16	17	18	19	20	21	22	23	24	25	26
N	O	P	Q	R	S	T	U	V	W	X	Y	Z

Which number?	Notes/Number	Letter
This number is a multiple of seven and two and is a factor of 28.		
This number is a square number, a multiple of three and one more than a cube number.		
This number is a prime number and a factor of 36.		
When this number is squared, the answer is the largest square number in the list above.		
This prime number is > 19 and < 29.		
This number is a multiple of five and three.		
This multiple of nine is in between two prime numbers.		
This number is the difference between 5^2 and 6^2.		

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Solving Problems Involving an Understanding of Equals

Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign.

Solve each problem and write out your answer as an equation – the first one has been done for you.

E.g. Dan saves 90p every week for 9 weeks. If Diana saves 45p per week, how long will it take her to save the same amount?

90 × 9 = 810 - £8.10p

810 ÷ 45 = 18

Equation: 90 × 9 = 45 × 18

Answer: 18 weeks

1. Mary needs 2200g of flour for her baking. She would need 22 of the packets containing 100g but how many of the packets containing 440g would she need?

Answer:

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2. Sam and Ahmed are training for their 1000m swimming badge. Sam is going to swim 40 lengths of 25 metres. Ahmed wants to swim his distance in widths. How many 10 metre widths will he need to swim?

Answer:

3. Effie's sunflower grows 6cm a week for 23 weeks. Ethan's sunflower reaches exactly the same height, but it takes 46 weeks to grow. How much does his sunflower grow per week?

Answer:

4. The Blue Team and the Red Team are having a water race. They each need to move 8000ml of water from one end of the course to the other. The Blue Team have a beaker which holds 200 ml. The Red Team have a beaker which holds 250ml of water. How many trips will each team need to make?

Answer:

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Understanding the Equals Sign

Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign.

Answer these questions by remembering that = means 'the same as' or 'is equal to' and not 'the answer is...'.

1. $6 \times \square = 42$
2. $\square = 5 \times 6$
3. $10 \div 5 = 1 + \square$
4. $2^2 + \square = 3^2$
5. $4 \times 9 = 18 \times \square$
6. $6 \times \square = 2 \times 12$
7. $2 + \square + \square = 3^2$
8. $14 \div \square = 13 + 1$
9. $48 \div \square = 36 \div 6$
10. $1 + 2 + 3 + 4 + 5 = 100 - \square$
11. $21 + 9 = 10 \times \square$
12. $5^2 - 1 = 4 \times \square$
13. $34 \div 2 = 10 + 10 - \square$
14. $64 + 36 = 82 + \square$
15. $4 \times 400 = 1600 \times \square$
16. $26 \times 0 = \square \times 43$
17. $3^3 = 23 + \square$
18. $0.7 + \square = 5 - 4$
19. $12 \times 12 = 132 + \square$
20. 50% of 50 = 25% of $\square$

Write some balanced equations using the = sign to show that both sides of your equation are equal. The number to make is given.

1.	24	
	=	
2.	50	
	=	
3.	76	
	=	
4.	172	
	=	

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Multiplication and Division Piggy Bank Problems

Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.

A. How many of each coin is in the piggy bank?



2p coin _____

86p



5p coin _____

£1.45



20p coin _____

£7.60

B. How many of each coin is in the piggy bank?





£1.76 | 26 |





£9.16 | 48 |





£10.60 | 19 |

C. How many of each coin could be in the piggy bank?





£1.67 | |





£3.05 | |





£35.10 | |

D. How do these circumstances affect the amounts in these savers' piggy banks?



Sonia

£8.26



Krystal

£2.72

Sonia gives half of her money to Krystal.		
They both save until they have doubled their money.		
They add their money together and share it between themselves equally.		

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Solving Problems Involving Simple Rates

Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.

1. If a car travels 300 miles in six hours, how far would we expect it to travel in two hours?

2. A teacher can mark seven pieces of work every ten minutes. How many could they mark in an hour and a half?

3. The school kitchen makes two meals every five minutes. How long will they need to prepare food for the 120 children eating dinner?

4. If a rocket uses 20 000 litres of fuel to fly for two minutes, how much fuel will it burn in five and a half minutes?

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5. Ben drives 210 kilometres in three hours, and Darius drives 300 kilometres in five hours. Who is driving the fastest on average?

6. A supermarket has two offers on free range eggs: 6 for £1.20 and 15 for £3.30
Which is the best deal?

7. Tamsin runs 12 miles in two hours and Julie runs 6.5 miles in an hour.
Who is running faster?

8. If an object has a velocity of five kilometres per minute, how long will it take to travel 500km?

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