Year 4 Maths Number and Place Value

Learning from Home Activity Booklet

Year 4 Programme of Study – Number and Place Value

Identifying Even Numbers on a Number Board

Can you figure out the missing even numbers on the number board?

Write in all the missing numbers on the number board and colour in all the even numbers.

21		23	24	25	26	27			
31				35		37		39	40
41				45		47			
51				55	56	57	58	59	60

1. What have you noticed about all of the even numbers?

2. Is there a pattern?

3. How can we tell if a number is even?

4. If the number board continued on past 60, what would the next four even numbers be?

Identifying Odd Numbers on a Number Board

Can you figure out the missing odd numbers on the number board?

Write in all the missing numbers on the number board and colour in all the odd numbers.

61	62		64	65	66			69	70
	72				76				
	82				86				
	92				96	97	98		

1. What have you noticed about all of the odd numbers?

2. Is there a pattern?

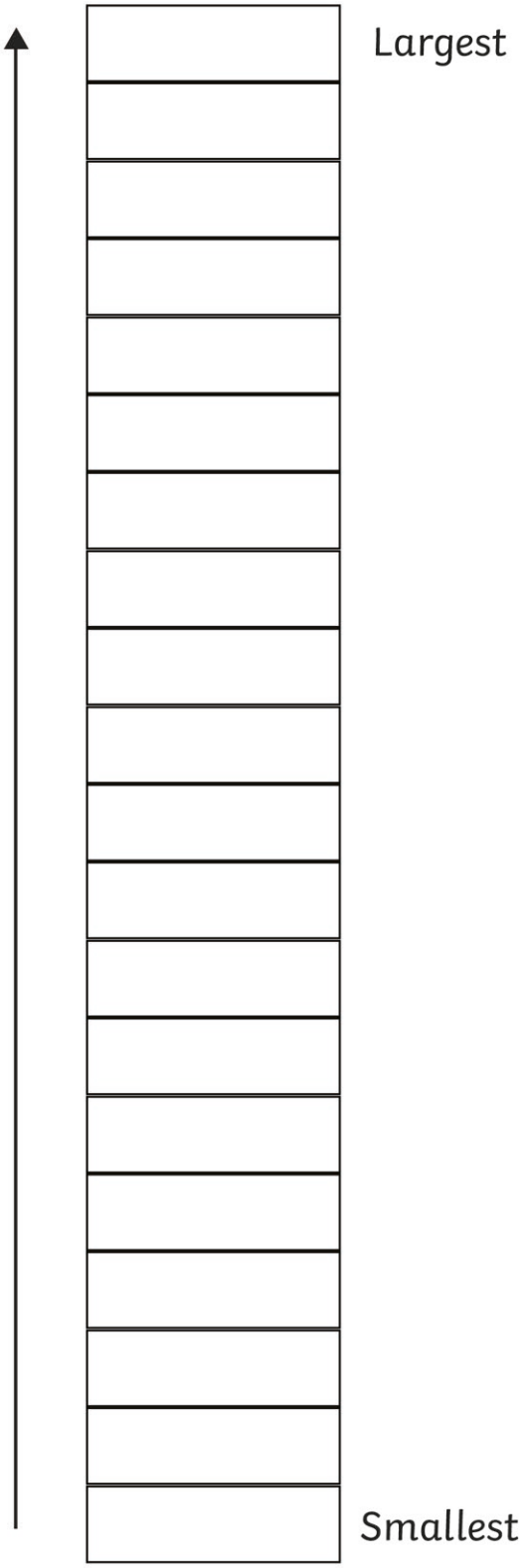
3. How can we tell if a number is odd?

4. If the number board continued on past 100, what would the next four odd numbers be?

Ordering 4-Digit Numbers

2156	1211	5369	1456	5786	2191	6819	1126	9105	8888
2145	2399	1365	9499	5876	9091	5010	6151	8527	3013

Compare and order the numbers above, from smallest to largest.



Comparing and Ordering Numbers Beyond 1000

Comparing numbers to decide which are bigger and which are smaller requires a close look at the value of each digit. The best way to compare the size of numbers directly is to use a place value chart to inspect them. Consider the following set of numbers – **999, 1001, 1099, 9001, 10 001**

It could be possible to get mixed up when ordering these but with a place value chart there is no confusion – let's put the numbers into this place value chart:

Ten Thousands	Thousands	Hundreds	Tens	Ones	
		9	9	9	999
	1	0	0	1	1001
	1	0	9	9	1099
	9	0	0	1	9001
1	0	0	0	1	10 001

As a digit is placed further to the left on the place value chart, its value increases. So when comparing how big numbers are, it is always worth starting at the left (largest) and moving to the right (smallest).

So when comparing, if a number has digits further to the left of the grid than the others, (10 001) then it is obviously the largest. However, if more than one number has a digit in the same column, then check to see which has the greatest value (this will be the bigger number).

If both numbers have same value digit in the same column then you keep looking to the right until you find a difference (1099 is bigger than 1001). Using this system will help to accurately order numbers from largest to smallest.

A. Write each of these numbers into the place value charts and then order them from highest to lowest. Cross them out when you have written them in to make your task easier.

1. 856 5001 4999 949 4959

Ten Thousands	Thousands	Hundreds	Tens	Ones	Order from highest to lowest

2. 35 375 7357 735 5735 5573

Ten Thousands	Thousands	Hundreds	Tens	Ones	Order from highest to lowest

B. Can you rewrite these numbers in order from highest to lowest? Sketch a place value chart on a whiteboard or on paper to help you if you need it.

1. 2632 6366 6332 999 1001

2. 9001 999 4526 10 001 1009

3.	2828	8228	2882	20 820	8802

4.	6400	46 001	64 001	4600	6040

A. Compare the size of the following numbers and insert one of these symbols <> to make the number statement read correctly. Sketching a mini place value chart may help you with these. The first one has been done for you.

1.	817	>	781
3.	6205		6208
5.	8574		7548
7.	4274		7442
9.	7891		7198
11.	9999		10 000

2.	1026	<	6021
4.	1099		9011
6.	3991		3919
8.	1056		10 065
10.	10 001		10 010
12.	80 102		29 999

Place Value to 10 000

Remember:

- digits have their place;
- each column gives a value;
- where a number is placed shows its value.

Thousands	Hundreds	Tens	Ones
9	**4**	**8**	**2**
9000	400	80	2

1. What is the value of each number underlined? Write the value as a number.

a. 9<u>4</u>82 = _____

b. 10<u>2</u>5 = _____

c. 876<u>3</u>= _____

d. 5438 = _____

e. 422<u>0</u> = _____

f. 37<u>7</u>5 = _____

g. 2<u>8</u>42 = _____

h. <u>6</u>297 = _____

2. Complete the following:

4352 = 4000 + 300 + 50 + 2

a. 1275 = _____ + 200 + _____ + _____

b. 5489 = _____ + _____ + 80 + _____

c. 3734 = _____ + _____ + _____ + 4

d. 6644 = 6000 + _____ + _____ + _____

e. _____ = 6000 + 800 + 60 + 7

f. _____ = 5000 + 400 + 20 + 2

g. _____ = 3000 + 700 + 20 + 0

h. _____ = 9000 + 400 + 60 + 2

Five-Digit Numbers in Written, Numerical and Expanded Form

Fill in the table by writing the number in numerical, written or expanded formats. The first one has been done for you!

Expanded Format										Numerical Format	Written Format
1	Ten Thousands	2	Thousands	5	Hundreds	4	Tens	0	Ones	12 540	twelve thousand, five hundred and forty
	Ten Thousands		Thousands		Hundreds		Tens		Ones	18 730	
	Ten Thousands		Thousands		Hundreds		Tens		Ones		eighteen thousand, two hundred and fifty
2	Ten Thousands	1	Thousands	3	Hundreds	5	Tens	0	Ones		
	Ten Thousands		Thousands		Hundreds		Tens		Ones		fifteen thousand, six hundred and eleven
	Ten Thousands		Thousands		Hundreds		Tens		Ones	14 400	
2	Ten Thousands	0	Thousands	7	Hundreds	5	Tens	5	Ones		
1	Ten Thousands	3	Thousands	4	Hundreds	8	Tens	0	Ones		
	Ten Thousands		Thousands		Hundreds		Tens		Ones		ten thousand, nine hundred and thirty-two
	Ten Thousands		Thousands		Hundreds		Tens		Ones	25 606	

Number Partitioning

	1	5	3	=	1	0	0	+	5	0	+	3

1.	5	5	3	=				+			+	
2.	2	2	5	=				+			+	
3.	4	0	5	=				+			+	
4.	1	3	2	=				+			+	
5.	7	4	7	=				+			+	
6.	7	8	6	=				+			+	
7.	3	2	4	=				+			+	
8.	4	2	9	=				+			+	
9.	9	5	3	=				+			+	
10.	2	2	5	=				+			+	
11.	1	1	5	=				+			+	
12.	6	3	7	=				+			+	
13.	5	4	9	=				+			+	
14.	4	2	9	=				+			+	
15.	3	4	8	=				+			+	
16.	1	8	4	=				+			+	
17.	6	9	5	=				+			+	
18.	4	0	7	7	=			+		+		+
19.	6	9	9	8	=			+		+		+
20.	5	0	8	4	=			+		+		+

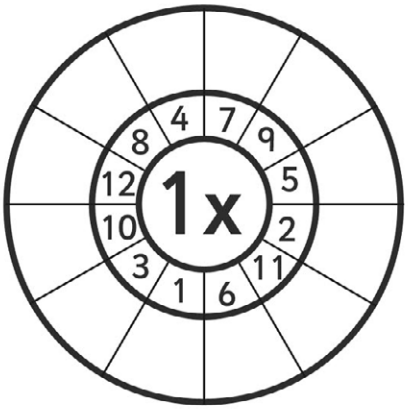
Number Partitioning

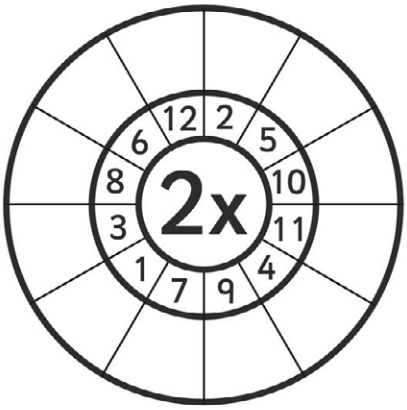
153 = 100 + 50 + 3

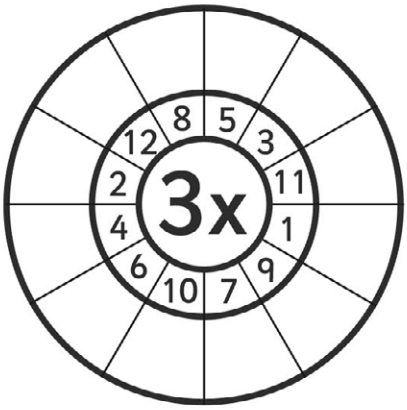
1. 291 = ☐ + ☐ + ☐
2. 162 = ☐ + ☐ + ☐
3. 320 = ☐ + ☐ + ☐
4. 428 = ☐ + ☐ + ☐
5. 473 = ☐ + ☐ + ☐
6. 507 = ☐ + ☐ + ☐
7. 481 = ☐ + ☐ + ☐
8. 285 = ☐ + ☐ + ☐
9. 551 = ☐ + ☐ + ☐
10. 617 = ☐ + ☐ + ☐
11. 563 = ☐ + ☐ + ☐
12. 141 = ☐ + ☐ + ☐
13. 858 = ☐ + ☐ + ☐
14. 395 = ☐ + ☐ + ☐
15. 328 = ☐ + ☐ + ☐
16. 568 = ☐ + ☐ + ☐
17. 409 = ☐ + ☐ + ☐
18. 6702 = ☐ + ☐ + ☐ + ☐
19. 3081 = ☐ + ☐ + ☐ + ☐
20. 1966 = ☐ + ☐ + ☐ + ☐

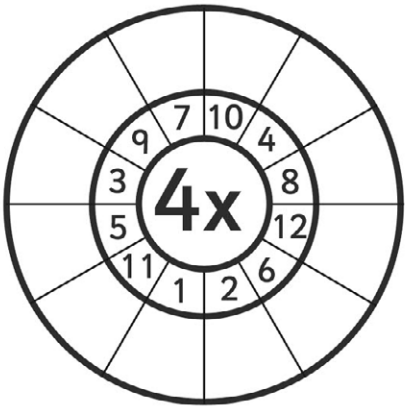
Multiplication Wheel

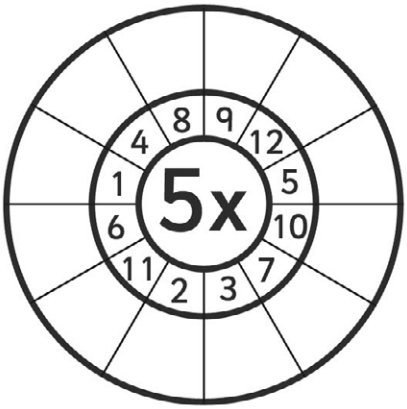
Multiply the numbers by the middle number.

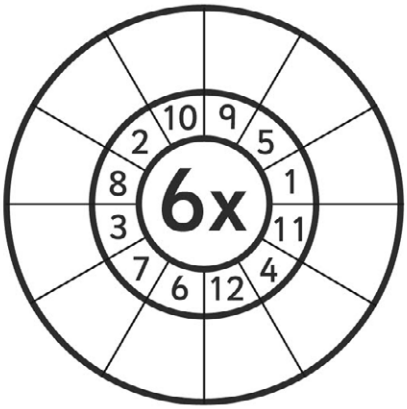


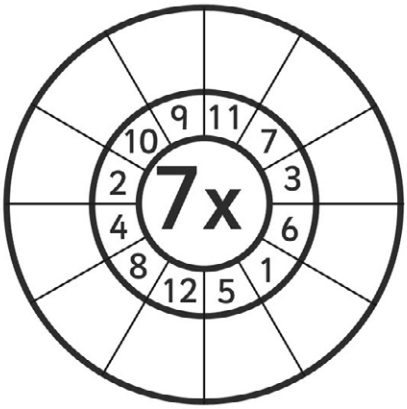


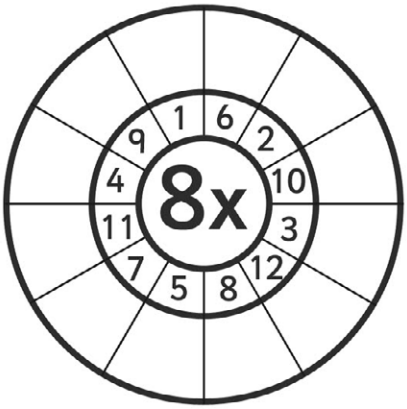


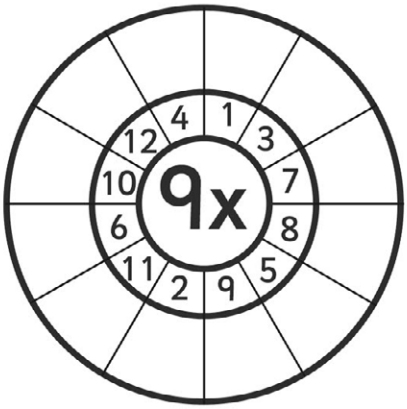


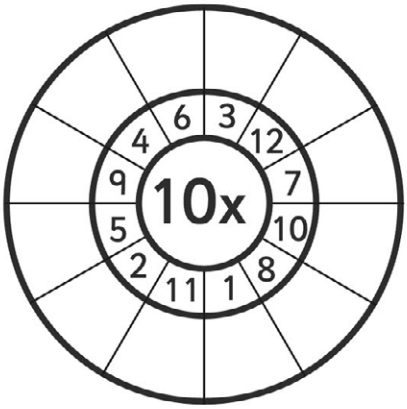


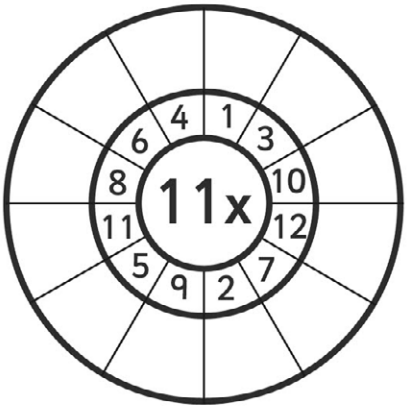


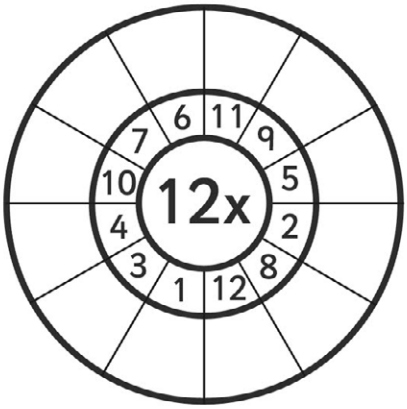








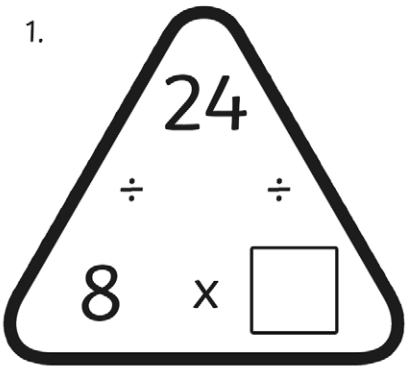




Multiplication Wheel

Fill in the blanks in these multiplication triangles.

1.



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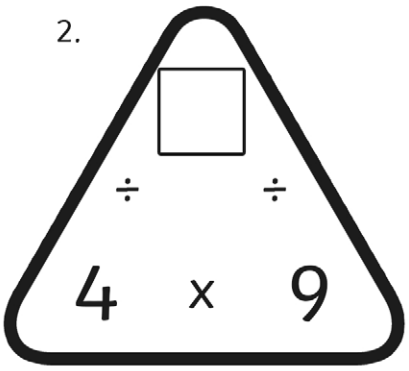

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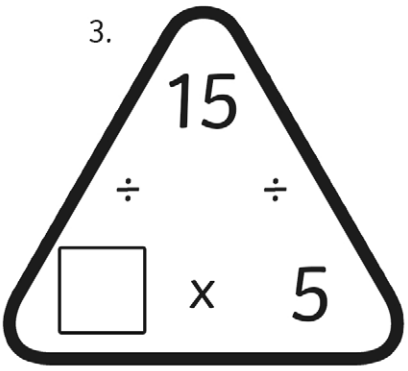

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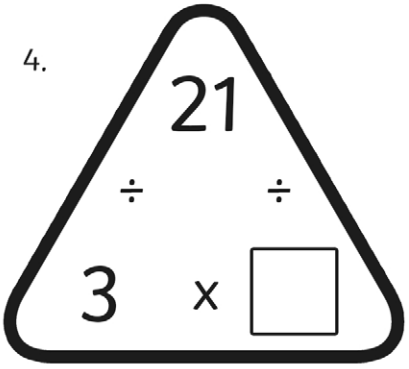

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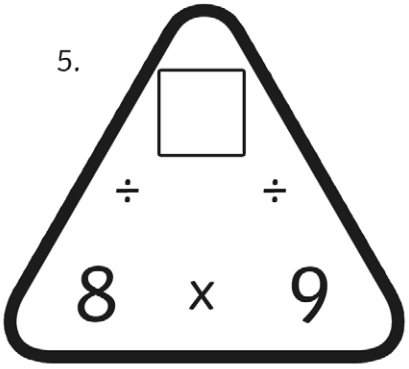

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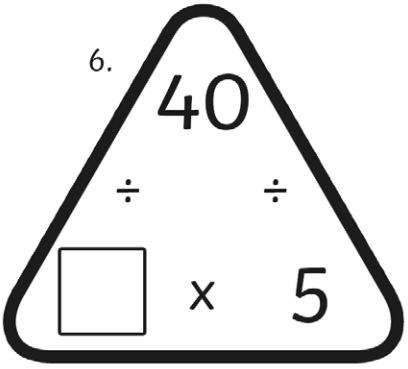

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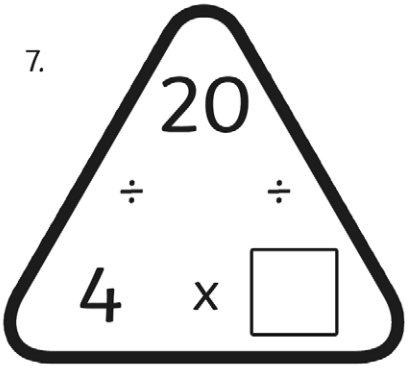

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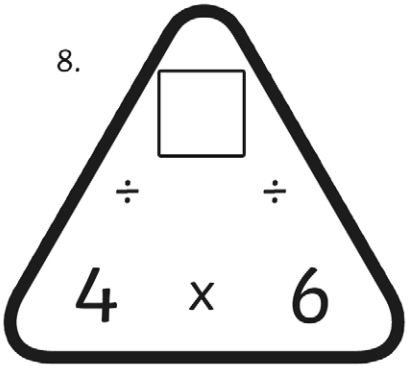

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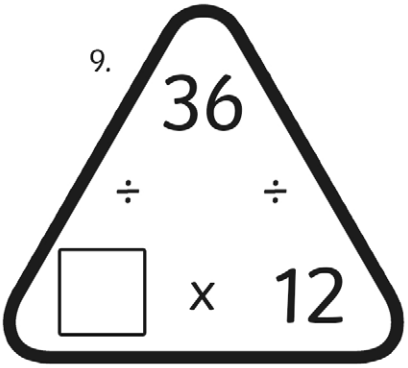

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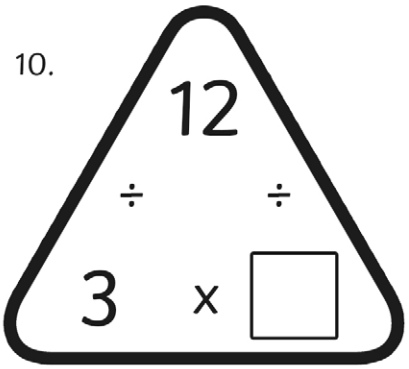

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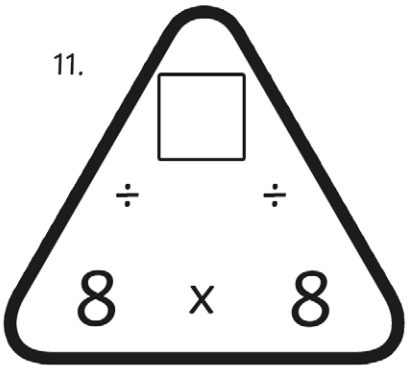

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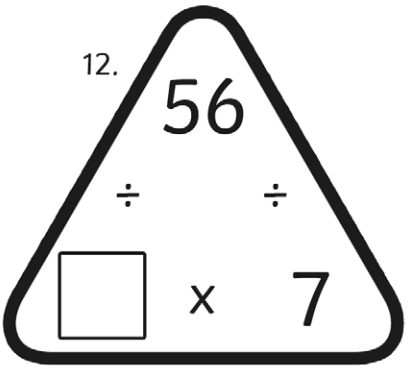


3 Times Table Activities

Count in 3s and colour in the grid:

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

Work out these answers:

a) 4 x 3 = _____

b) 3 x 3 = _____

c) 5 x 3 = _____

d) 2 x 3 = _____

e) 9 x 3 = _____

f) 6 x 3 = _____

g) 7 x 3 = _____

h) 1 x 3 = _____

i) 11 x 3 = _____

j) 8 x 3 = _____

k) 10 x 3 = _____

l) 12 x 3 = _____

How many pieces of fruit are there?

a)  _____ x _____ = _____

b)  _____ x _____ = _____

c)  _____ x _____ = _____

d)  _____ x _____ = _____

4 Times Table Activities

Count in 4s and colour in the grid:

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

Work out these answers:

a) 4 x 4 = _____

b) 3 x 4 = _____

c) 5 x 4 = _____

d) 2 x 4 = _____

e) 9 x 4 = _____

f) 6 x 4 = _____

g) 7 x 4 = _____

h) 1 x 4 = _____

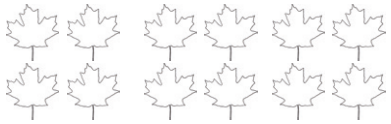
i) 11 x 4 = _____

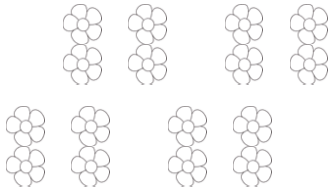
j) 8 x 4 = _____

k) 10 x 4 = _____

l) 12 x 4 = _____

How many different leaves are there?

a)  _____ x _____ = _____

b)  _____ x _____ = _____

c)  _____ x _____ = _____

6 Times Table Activities

Count in 6s and colour in the grid:

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	101	102	103	104	105	106	107	108
109	110	111	112	113	114	115	116	117	118	119	120
121	122	123	124	125	126	127	128	129	130	131	132
133	134	135	136	137	138	139	140	141	142	143	144

Work out these answers:

a) 2 x 6 = _____

b) 12 x 6 = _____

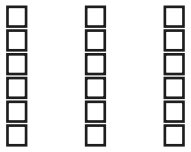
c) 5 x 6 = _____

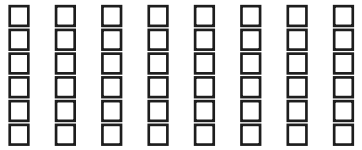
d) 8 x 6 = _____

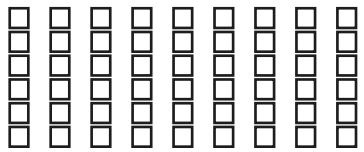
e) 7 x 6 = _____

f) 6 x 6 = _____

How many blocks are there?

a)  _____ x _____ = _____

b)  _____ x _____ = _____

c)  _____ x _____ = _____

7 Times Table Activities

Count in 7s and colour in the grid:

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	101	102	103	104	105	106	107	108
109	110	111	112	113	114	115	116	117	118	119	120
121	122	123	124	125	126	127	128	129	130	131	132
133	134	135	136	137	138	139	140	141	142	143	144

Work out these answers:

a) 2 x 7 = _____

b) 10 x 7 = _____

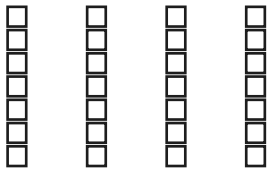
c) 5 x 7 = _____

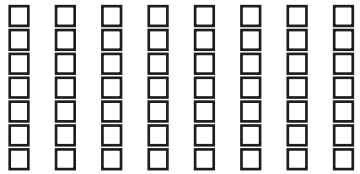
d) 12 x 7 = _____

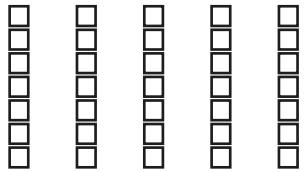
e) 7 x 7 = _____

f) 9 x 7 = _____

How many blocks are there?

a)  _____ x _____ = _____

b)  _____ x _____ = _____

c)  _____ x _____ = _____

8 Times Table Activities

Count in 8s and colour in the grid:

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	101	102	103	104	105	106	107	108
109	110	111	112	113	114	115	116	117	118	119	120
121	122	123	124	125	126	127	128	129	130	131	132
133	134	135	136	137	138	139	140	141	142	143	144

Work out these answers:

a) 2 x 8 = _____

b) 10 x 8 = _____

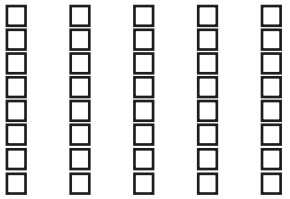
c) 5 x 8 = _____

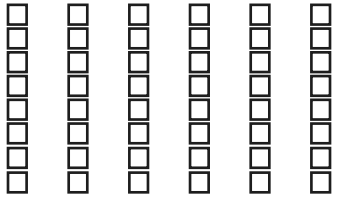
d) 8 x 8 = _____

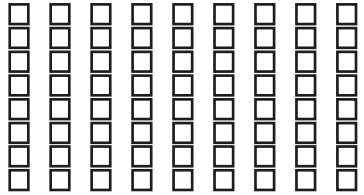
e) 7 x 8 = _____

f) 12 x 8 = _____

How many blocks are there?

a)  _____ x _____ = _____

b)  _____ x _____ = _____

c)  _____ x _____ = _____

9 Times Table Activities

Count in 9s and colour in the grid:

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	101	102	103	104	105	106	107	108
109	110	111	112	113	114	115	116	117	118	119	120
121	122	123	124	125	126	127	128	129	130	131	132
133	134	135	136	137	138	139	140	141	142	143	144

Work out these answers:

a) 2 x 9 = _____

b) 3 x 9 = _____

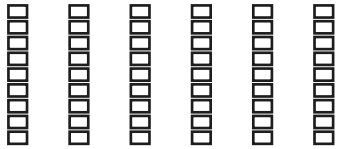
c) 5 x 9 = _____

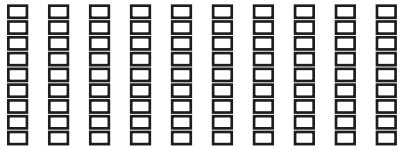
d) 8 x 9 = _____

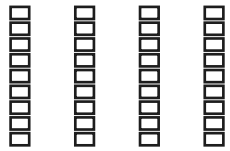
e) 12 x 9 = _____

f) 9 x 9 = _____

How many blocks are there?

a)  _____ x _____ = _____

b)  _____ x _____ = _____

c)  _____ x _____ = _____