

Dividing 4-Digit Numbers (Without Exchanging)

To divide 4-digit numbers by 1-digit numbers



- 1) Identify the numbers represented in the place value chart and complete the division, using the formal method.

a)

1000s	100s	10s	1s
● ● ●		● ● ● ● ● ● ● ● ●	● ● ●

3				

b)

1000s	100s	10s	1s
● ● ● ● ● ●	● ● ● ● ● ● ● ●	● ●	

2				

c)

1000s	100s	10s	1s
● ● ● ●		● ● ● ● ● ● ● ●	

4				

d)

1000s	100s	10s	1s
● ● ● ●	● ● ● ●	● ●	● ● ● ●

2				

Dividing 4-Digit Numbers (Without Exchanging)

2) Complete the following division problems, using the formal method. You may wish to use the place value grids to help you.

a)

2	8	4	2	6

1000s	100s	10s	1s

b)

4	8	8	0	4

1000s	100s	10s	1s

c)

3	9	3	6	0

1000s	100s	10s	1s

d)

3	6	3	9	9

1000s	100s	10s	1s

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To divide 4-digit numbers by 1-digit numbers



- 1) Identify the numbers represented in the place value chart and complete the division, using the formal method.

a)

1000s	100s	10s	1s

2				

b)

1000s	100s	10s	1s

3				

c)

1000s	100s	10s	1s

4				

d)

1000s	100s	10s	1s

2				

Dividing 4-Digit Numbers (Without Exchanging)

2) Use the number cards below to generate your own 4-digit number and complete the division questions, using the formal method. Cards can be used as many times as necessary.

a) Divisor = 2



2						2						2							

2						2						2							

b) Divisor = 3



3						3						3							

Dividing 4-Digit Numbers (Without Exchanging)

To divide 4-digit numbers by 1-digit numbers



- 1) Identify the numbers represented in the place value chart and complete the division, using the formal method.

a)

9936				

b)

4084				

c)

2446				

d)

6093				

Dividing 4-Digit Numbers (Without Exchanging)

2) Use the number cards below to generate your own 4-digit number and complete the division questions, using the formal method. Cards can be used as many times as necessary.

a) Divisor = 2



2				

2				

2				

a) Divisor = 3



3				

3				

3				

a) Divisor = 4



4				

4				

4				

Dividing 4-Digit Numbers (Without Exchanging) Answers

To divide 4-digit numbers by 1-digit numbers



- 1) Identify the numbers represented in the place value chart and complete the division, using the formal method.

a)

1000s	100s	10s	1s

	1	0	3	1
3	3	0	9	3

b)

1000s	100s	10s	1s

	3	4	1	0
2	6	8	2	0

c)

1000s	100s	10s	1s

	1	0	2	0
4	4	0	8	0

d)

1000s	100s	10s	1s

	2	2	1	2
2	4	4	2	4

Dividing 4-Digit Numbers (Without Exchanging) **Answers**

2) Complete the following division problems, using the formal method. You may wish to use the place value grids to help you.

Children draw place value counters to support them

a)

	4	2	1	3
2	8	4	2	6

1000s	100s	10s	1s

b)

	2	2	0	1
4	8	8	0	4

1000s	100s	10s	1s

c)

	3	1	2	0
3	9	3	6	0

1000s	100s	10s	1s

d)

	2	1	3	3
3	6	3	9	9

1000s	100s	10s	1s

Dividing 4-Digit Numbers (Without Exchanging) Answers

To divide 4-digit numbers by 1-digit numbers



1) Identify the numbers represented in the place value chart and complete the division, using the formal method.

a)

1000s	100s	10s	1s

	1	1	4	2
2	2	2	8	4

b)

1000s	100s	10s	1s

	1	1	2	2
3	3	3	6	6

c)

1000s	100s	10s	1s

	2	1	2	2
4	8	4	8	8

d)

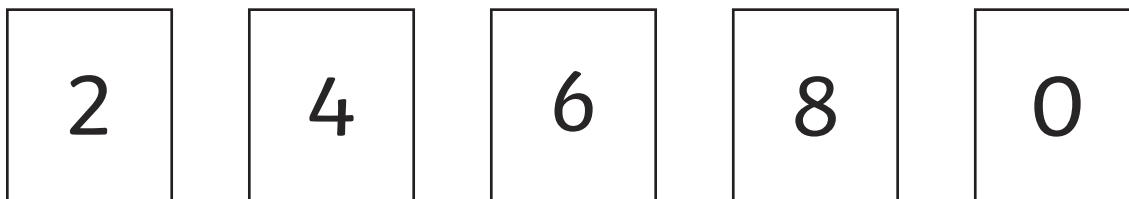
1000s	100s	10s	1s

	1	0	4	4
2	2	0	8	8

Dividing 4-Digit Numbers (Without Exchanging)

2) Use the number cards below to generate your own 4-digit number and complete the division questions, using the formal method. Cards can be used as many times as necessary.

a) Divisor = 2



Various answers e.g.

	3	2	4	2
2	6	4	8	4

	4	0	2	1
2	8	0	4	2

2				

2				

2				

2				

b) Divisor = 3



Various answers e.g.

	1	3	0	0
3	3	9	0	0

	2	1	1	0
3	6	3	3	0

3				

Dividing 4-Digit Numbers (Without Exchanging) Answers

To divide 4-digit numbers by 1-digit numbers



1) Identify the numbers represented in the place value chart and complete the division, using the formal method.

a)

9936				
3312	3312	3312		
	3	3	1	2
3	9	9	3	6

b)

4084				
1021	1021	1021	1021	
	1	0	2	1
4	4	0	8	4

c)

2446				
1223	1223			
	1	2	2	3
2	2	4	4	6

d)

6093				
2031	2031	2031		
	2	0	3	1
3	6	0	9	3

Dividing 4-Digit Numbers (Without Exchanging)

2) Use the number cards below to generate your own 4-digit number and complete the division questions, using the formal method. Cards can be used as many times as necessary.

a) Divisor = 2

2

4

6

8

0

Various answers e.g.

	4	0	0	3
2	8	0	0	6

2				

2				

a) Divisor = 3

3

6

9

0

Various answers e.g.

	2	1	1	3
3	6	3	3	9

3				

3				

a) Divisor = 4

4

8

0

Various answers e.g.

	1	2	0	1
4	4	8	0	4

4				

4				



1)

	4	4	3	2
3	9	0	3	6

- a) 8 thousands divided by 2 is equal to 4 thousands.
- b) 8 hundreds divided by 2 is equal to 4 hundreds.
- c) 6 tens divided by 2 is equal to 3 tens.
- d) 4 ones divided by 2 is equal to 2 ones.

3)

	3	3	2	4
2	6	6	4	8

	1	1	2	3
3	3	3	6	9

	1	1	2	0
4	4	4	8	0

- 2)
- a) $8404 \div 2 = 4202$
 - b) $9036 \div 3 = 3012$
 - c) $8404 \div 4 = 2101$
 - d) $3693 \div 3 = 1231$

- 1)
- a) $2044 \div 2 < 6063 \div 3$
 - b) $2048 \div 2 > 4048 \div 4$
 - c) $3069 \div 3 = 2046 \div 2$

2) Liza is incorrect because she has grouped the place value counters into groups of 2 but not counted how many groups there are. Solved correctly the question would be:

$8068 \div 2 = 4034$

4000 as in 4 groups of 2 thousands

30 as in three groups of 2 tens

4 as in 4 groups of 2 ones

3) The place value chart shows:

3	9	0	6	5

a) The counter missing is a '1' - this makes the number 9066

b)

	3	0	2	2
3	9	0	6	6

$9066 \div 3 = 3022$





1) Varying answers are possible. For example

a) $8048 \div 4 = 6036 \div 3$
 $8048 \div 4 = 2012$ and $6036 \div 3 = 2012$

b) $8848 \div 4 < 6936 \div 3$
 $8848 \div 4 = 2212$ and $6936 \div 3 = 2312$
OR
 $8448 \div 4 < 6636 \div 3$
 $8448 \div 4 = 2112$ and $6636 \div 3 = 2212$

c) $8484 \div 4 > 6036 \div 3$
 $8484 \div 4 = 2121$ and $6036 \div 3 = 2012$
OR
 $8404 \div 4 > 6006 \div 3$
 $8404 \div 4 = 2101$ and $6006 \div 3 = 2002$

2) Total prize money:

$$£8100 + £1530 = £9630$$

$$£9630 \div 3 = £3210$$

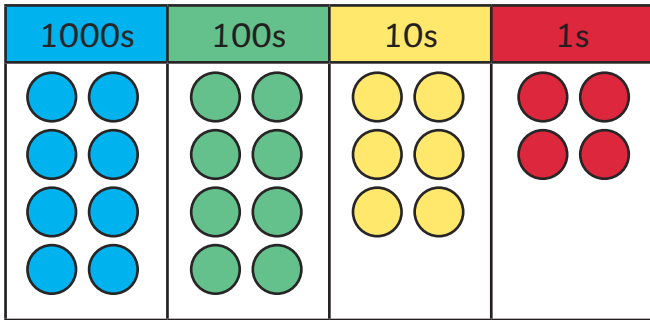
3) $£6603 \div 3 = £2201$

$$£8404 \div 4 = £2101$$

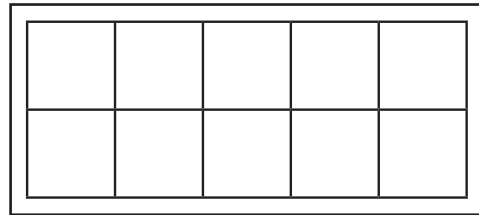
It would be better to buy the set of four because it's cheaper per piece of equipment.



- 1) Circle the groups on the place value chart to help you complete the sentences. Then solve the question using the formal method.

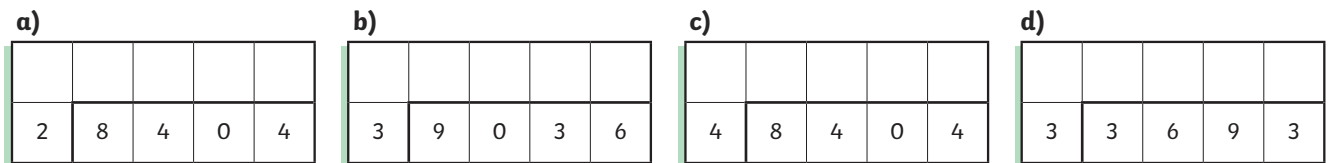


$$8864 \div 2 = \boxed{}$$

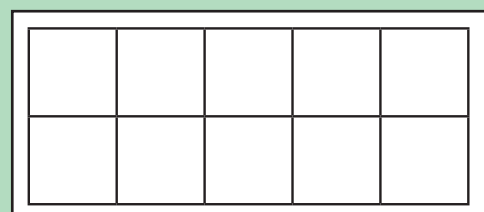
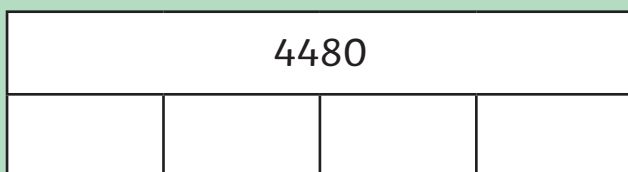
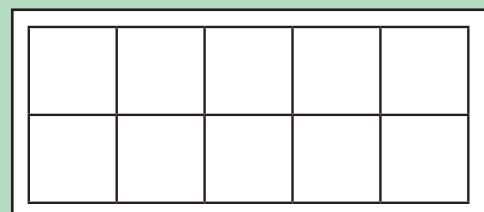
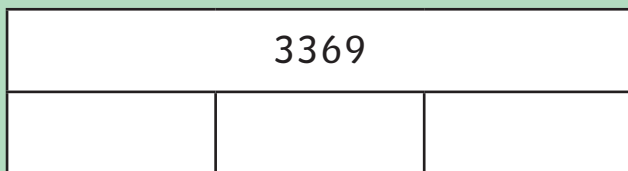
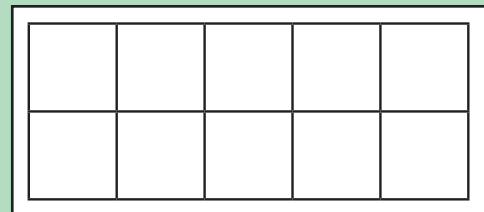
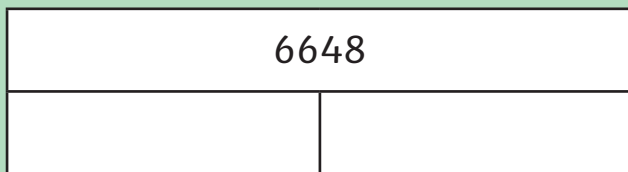


- a) thousands divided by 2 is equal to thousands.
- b) hundreds divided by 2 is equal to hundreds.
- c) tens divided by 2 is equal to tens.
- d) ones divided by 2 is equal to ones.

- 2) Complete the following divisions using the formal method. Use a place value chart to help.



- 3) Find the missing numbers in the bar model, setting out your work in the formal method.





- 1) Complete the comparison statement, using a number card to make the statement true. You may use each number card more than once per question if you wish.



- a) $8 \square 48 \div 4 \square 60 \square 6 \div 3$
- b) $8 \square 48 \div 4 \square 6 \square 36 \div 3$
- c) $84 \square 4 \div 4 \square 60 \square 6 \div 3$

- 2) Mrs Hawkins receives £8100 as prize money from a competition. Her partner receives £1530 as a runner up in the same competition. They decide to split the total prize money equally between their three children. How much does each child receive?

a)



- 3) A charity wants to buy new climbing frames for local youth groups. A shop sells a set of three climbing frames for £6603. A catalogue sells a set of four climbing frames for £8400. Where should the charity buy from to get the best deal? Explain why.

- 1) Circle the groups on the place value chart to help you complete the sentences. Then solve the question using the formal method.



1000s	100s	10s	1s
● ●	● ●	● ●	● ●
● ●	● ●	● ●	● ●
● ●	● ●	● ●	
● ●	● ●		

$$8864 \div 2 = \boxed{}$$

- a) thousands divided by 2 is equal to thousands.
 b) hundreds divided by 2 is equal to hundreds.
 c) tens divided by 2 is equal to tens.
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- 2) Complete the following divisions using the formal method. Use a place value chart to help.

2	8	4	0	4	3	9	0	3	6
4	8	4	0	4	3	3	6	9	3

- 3) Find the missing numbers in the bar model, setting out your work in the formal method.

6648				
3369				
4480				

- 1) Circle the groups on the place value chart to help you complete the sentences. Then solve the question using the formal method.



1000s	100s	10s	1s
● ●	● ●	● ●	● ●
● ●	● ●	● ●	● ●
● ●	● ●	● ●	
● ●	● ●		

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2	8	4	0	4	3	9	0	3	6
4	8	4	0	4	3	3	6	9	3

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6648				
3369				
4480				

- 1) Complete the following, using $<$ $>$ or $=$ to make each statement true.



a) $2044 \div 2$ $6063 \div 3$

b) $2048 \div 2$ $4048 \div 4$

c) $3069 \div 3$ $2046 \div 2$

- 2) Liza has been using a place value grid to help her complete a division question. Is she correct? Give your reasoning.



Liza

8068 \div 2 = 2022 because in each group there are 2 thousands, 2 hundreds and 2 ones.

1000s	100s	10s	1s
8 blue circles		6 yellow circles	8 red circles

- 3) A place value counter has fallen from one of the columns.
- a) Can you work out which column it has fallen from to make the number divisible by 3?
- b) Complete the division and explain your answer.

1000s	100s	10s	1s
8 blue circles		6 yellow circles	8 red circles

- 1) Complete the following, using $<$ $>$ or $=$ to make each statement true.



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1000s	100s	10s	1s
8 blue circles		6 yellow circles	8 red circles

- 1) Complete the comparison statement, using a number card to make the statement true. You may use each number card more than once per question if you wish.



a) $8 \square 48 \div 4 \square 60 \square 6 \div 3$

b) $8 \square 48 \div 4 \square 6 \square 36 \div 3$

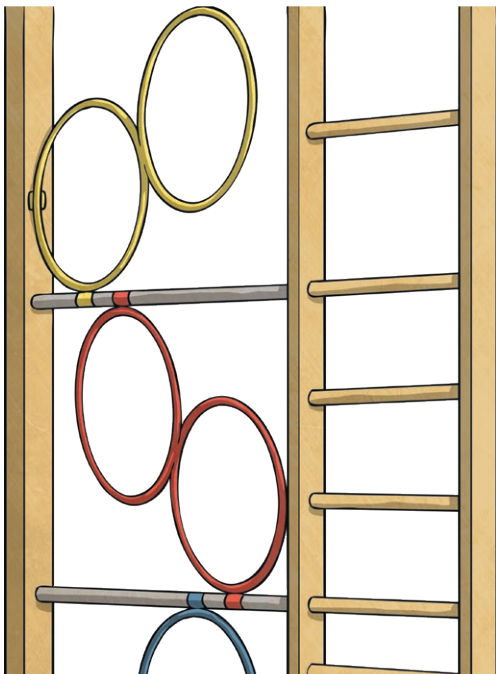
c) $84 \square 4 \div 4 \square 60 \square 6 \div 3$



- 2) Mrs Hawkins receives £8100 as prize money from a competition. Her partner receives £1530 as a runner up in the same competition. They decide to split the total prize money equally between their three children. How much does each child receive?



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a) $8 \square 48 \div 4 \square 60 \square 6 \div 3$

b) $8 \square 48 \div 4 \square 6 \square 36 \div 3$

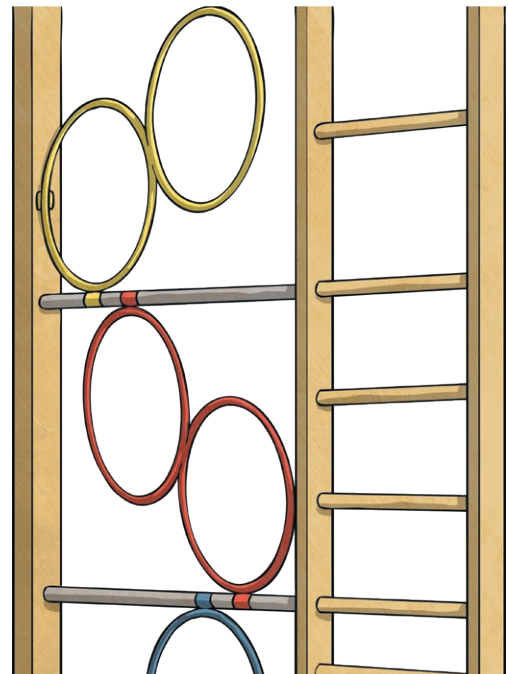
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Blank ThHTO Place Value Chart

Th Thousands	H Hundreds	T Tens	O Ones

