

# Dividing with Remainders

To divide 4-digit numbers by 1-digit numbers with remainders.



1) Solve the division problems.

a)

3	1	8	6	4

b)

4	4	8	8	7

c)

5	1	6	5	7

d)

3	2	7	1	4

e)

4	8	9	2	7

f)

6	4	3	2	8

1) How much chocolate sauce is left over if...

a) 1286 ml is shared between 4 children?


--

b) 3546 ml is shared between 5 children?


--

c) 6577 ml is shared between 3 children?


--

d) 8947 ml is shared between 4 children?


--

# Dividing with Remainders

To divide 4-digit numbers by 1-digit numbers with remainders.



1) Solve the division problems.

a)  $1376 \div 3$


b)  $2587 \div 4$


c)  $7455 \div 8$


d)  $3673 \div 6$


e)  $1375 \div 4$


f)  $6605 \div 7$


2) How much chocolate sauce is left over if...

a) 3427 ml is shared between 4 children?


--

b) 7820 ml is shared between 9 children?


--

c) 9592 ml is shared between 6 children?


--

d) 8632 ml is shared between 7 guests?


--

# Dividing with Remainders

To divide 4-digit numbers by 1-digit numbers with remainders.



1) How much chocolate sauce is left over if...

a) 9258 ml is shared between 4 children?


b) 3792 ml is shared between 9 children?


c) 8749 ml is shared between 8 children?


d) 6832 ml is shared between 7 children?


e) 1082 ml is shared between 8 children?


f) 5242 ml is shared between 7 children?


1) Joe has done some calculations, but he isn't sure if he's got the answers right. Can you check them for him? What mistakes have been made?

a)  $4628 \div 5 = 927$

b)  $7429 \div 5 = 1070 \text{ r}2$

c)  $4403 \div 7 = 629$

d)  $5978 \div 8 = 747 \text{ r}2$

e)  $8319 \div 4 = 2079$


# Dividing with Remainders Answers

To divide 4-digit numbers by 1-digit numbers with remainders.



1) Solve the division problems.

a)

		6	2	1	r1
3	1	8	6	4	

b)

		1	2	2	1	r3
4	4	8	8	7		

c)

		3	3	1	r2
5	1	6	5	7	

d)

		9	0	4	r2
3	2	7	1	4	

e)

		2	2	3	1	r3
4	8	9	2	7		

f)

		7	2	1	r2	
6	4	3	2	8		

1) How much chocolate sauce is left over if...

a) 1286 ml is shared between 4 children?

		3	2	1	r2
4	1	2	8	6	

**Answer: 2ml**

b) 3546 ml is shared between 5 children?

		7	0	9	r1
5	3	5	4	6	

**Answer: 1ml**

c) 6577 ml is shared between 3 children?

		2	1	9	2	r1
3	6	5	7	7		

**Answer: 1ml**

d) 8947 ml is shared between 4 children?

		2	2	3	6	r3
4	8	9	4	7		

**Answer: 3ml**

# Dividing with Remainders Answers

To divide 4-digit numbers by 1-digit numbers with remainders.



1) Solve the division problems.

a)  $1376 \div 3$

		4	5	8	r2
3	1	3	<sup>1</sup> 7	<sup>2</sup> 6	

b)  $2587 \div 4$

		6	4	6	r3
4	2	5	<sup>1</sup> 8	<sup>2</sup> 7	

c)  $7455 \div 8$

		9	3	1	r7
8	7	4	<sup>2</sup> 5	<sup>1</sup> 5	

d)  $3673 \div 6$

		6	1	2	r1
6	3	6	7	<sup>1</sup> 3	

e)  $1375 \div 4$

		3	4	3	r3
4	1	3	<sup>1</sup> 7	<sup>1</sup> 5	

f)  $6605 \div 7$

		9	4	3	r4
7	6	6	<sup>3</sup> 0	<sup>2</sup> 5	

2) How much chocolate sauce is left over if...

a) 3427 ml is shared between 4 children?

		8	5	6	r3
4	3	4	<sup>2</sup> 2	<sup>2</sup> 7	

Answer: 3ml

b) 7820 ml is shared between 9 children?

		8	6	8	r8
9	7	8	<sup>6</sup> 2	<sup>8</sup> 0	

Answer: 8ml

c) 9592 ml is shared between 6 children?

	1	5	9	8	r4
6	9	<sup>3</sup> 5	<sup>5</sup> 9	<sup>5</sup> 2	

Answer: 4ml

d) 8632 ml is shared between 7 guests?

	1	2	3	3	r1
7	8	<sup>1</sup> 6	<sup>2</sup> 3	<sup>2</sup> 2	

Answer: 1ml

# Dividing with Remainders Answers

To divide 4-digit numbers by 1-digit numbers with remainders.

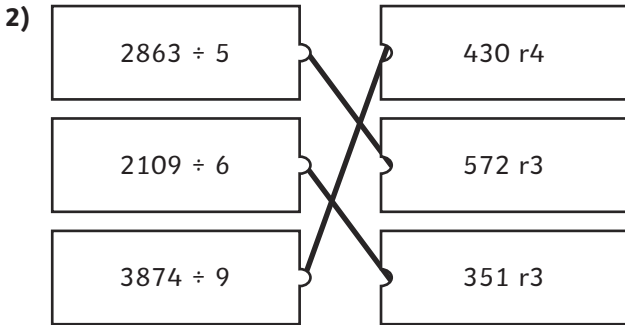


- 1) How much chocolate sauce is left over if...
- a) 9258ml is shared between 4 children?  
2ml ( $9258 \div 4 = 2314$ )
  - b) 3792ml is shared between 9 children  
3ml ( $3792 \div 9 = 421 \text{ r}3$ )
  - c) 8749 ml is shared between 8 children?  
5ml ( $8749 \div 8 = 1093 \text{ r}5$ )
  - d) 6832 ml is shared between 7 children?  
0ml ( $6832 \div 7 = 976$ )
  - e) 1082 ml is shared between 8 children?  
4ml ( $1082 \div 7 = 135 \text{ r}2$ )
  - f) 5242 ml is shared between 7 children?  
6ml ( $5242 \div 7 = 748 \text{ r}6$ )
- 1) Joe has done some calculations, but he isn't sure if he's got the answers right. Can you check them for him?
- a)  $4628 \div 5 = 927$   
**WRONG - the answer is 925 r3**
  - b)  $7429 \div 5 = 1070 \text{ r}2$   
**WRONG - the answer is 1485 r4**
  - c)  $4403 \div 7 = 629$   
**CORRECT**
  - d)  $5978 \div 8 = 747 \text{ r}2$   
**CORRECT**
  - e)  $8319 \div 4 = 2079$   
**WRONG - the answer is 2079 r3**



1)  $4876 \div 8 = 609 \text{ r}4$

610 packets will be needed



3)

- a)  $3517 \div 3 = 1172 \text{ r}1$
- b)  $4535 \div 5 = 907$
- c)  $9116 \div 7 = 1302 \text{ r}2$
- d)  $6902 \div 6 = 1150 \text{ r}2$

1)

- a) 328 ( $2625 \div 8 = 328 \text{ r}1$ )
- b) 755 ( $4532 \div 6 = 755 \text{ r}2$ )
- c) 313 ( $2821 \div 9 = 313 \text{ r}4$ )

2) Izzy has not exchanged correctly. As the initial 2 thousands is not divisible, they should have read the first two columns together as 24 hundreds. Correctly, it should be:

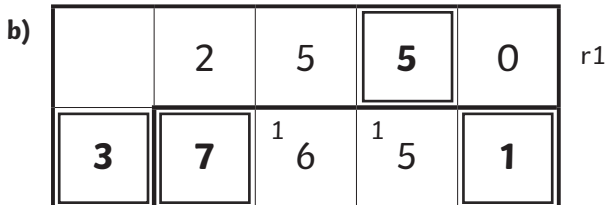
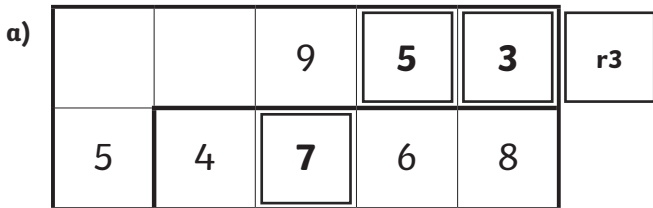
		3	1	2r1
8	2	<sup>2</sup> 4	9	<sup>1</sup> 7

3) True or false? Prove your answer using the short division method.

- a)  $3904 \div 6 = 654$   
FALSE: CORRECT ANSWER: 650 r4
- b)  $2483 \div 2 = 1632$   
FALSE: CORRECT ANSWER: 1241 r1
- c)  $5678 \div 4 = 1419 \text{ r}2$   
TRUE



1)



2) Daniel is correct  
 $1540 \div 5 = 308$   
 $308 \div 7 = 44$

3) Varying answers, including:

749  
 $749 \div 3 = 249 \text{ r}2$   
 $749 \div 4 = 187 \text{ r}1$   
 773  
 $773 \div 3 = 257 \text{ r}2$   
 $773 \div 4 = 193 \text{ r}1$



- 1) Cookies are packed 8 to a packet. There are 4876 cookies.  
How many packets will be needed to package all the cookies?



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


- 2) Match the question to the correct answer. Use the formal method to show your method.

2863 ÷ 5

430 r4

2109 ÷ 6

572 r3

3874 ÷ 9

351 r3


- 3) Solve these divisions making sure to exchange correctly and give your answers with remainders if necessary.

3	3	5	1	7

5	4	5	3	5

7	9	1	1	6

6	6	9	0	2







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There are 4876 cookies. How many packets will be needed to package all the cookies?



1000s	100s	10s	1s

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2109 ÷ 6	572 r3
3874 ÷ 9	351 r3

- 3) Solve these divisions making sure to exchange correctly and give your answers with remainders if necessary.

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5	4	5	3	5
7	9	1	1	6
6	6	9	0	2

- 1) Cookies are packed 8 to a packet.  
There are 4876 cookies. How many packets will be needed to package all the cookies?



1000s	100s	10s	1s

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- 3) Solve these divisions making sure to exchange correctly and give your answers with remainders if necessary.

3	3	5	1	7
5	4	5	3	5
7	9	1	1	6
6	6	9	0	2

1) Work out the values of a, b and c.



2625								
a	a	a	a	a	a	a	a	1

4532						
b	b	b	b	b	b	2

2821								
c	c	c	c	c	c	c	c	4

2) Izzy has been completing division questions but isn't sure if the answers are correct. Can you check this one?

		1	2	2r1
8	2	<sup>1</sup> 4	<sup>1</sup> 9	<sup>1</sup> 7

3) True or false? Prove your answer using the short division method.

- a)  $3904 \div 6 = 654$
- b)  $2483 \div 2 = 1632$
- c)  $5678 \div 4 = 1419 \text{ r}2$



1) Work out the values of a, b and c.



2625								
a	a	a	a	a	a	a	a	1

4532						
b	b	b	b	b	b	2

2821								
c	c	c	c	c	c	c	c	4

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1) Use your knowledge of short division to complete the following divisions by filling in the missing digits.



a)

		9			r
5	4		6	8	

b)

	2	5		0	r1
		<sup>1</sup> 6	<sup>1</sup> 5		

2) Daniel makes puddings. He has 1540kg of flour and he uses 5k a day. He is calculating how many weeks his remaining flour will last. He has calculated that this should last 44 weeks before he will need to buy more. Has he calculated this correctly? Prove it!



3) Elisa is thinking of a 3-digit number. What could her number be? Is there more than one answer?

- a) My number is between
- b) 700 and 800.
- c) When divided by 3 it gives a remainder of 2.
- d) When divided by 4 it gives a remainder of 1.



Eliza

1) Use your knowledge of short division to complete the following divisions by filling in the missing digits.



a)

		9			r
5	4		6	8	

b)

	2	5		0	r1
		<sup>1</sup> 6	<sup>1</sup> 5		

2) Daniel makes puddings. He has 1540kg of flour and he uses 5k a day. He is calculating how many weeks his remaining flour will last. He has calculated that this should last 44 weeks before he will need to buy more. Has he calculated this correctly? Prove it!



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Eliza