

Division with remainders

Worksheet

Today we are looking dividing with remainders. When we divide, sometimes we have a left over amount, these are known as remainders.

They look like this: $409 \div 3 = 136r1$

Remainders are represented with an r and then the amount that is left over.

I'm going to show you how I figured this out:

$$3 \overline{)409}$$

Starting in the hundreds column, I know that 3 goes into 4 once and has a remainder of 1. This is because 3×1 is 3, but we want to make the 3 fit into 4. To make 3 into a 4 you must add 1, so this extra 1 is carried from the hundreds column into the tens.

$$\begin{array}{r} 1 \\ 3 \overline{)409} \\ 1 \end{array}$$

Next, I move to the tens column. Since I carried over the extra 1 from the hundreds column my 0 now turns into a 10. 3 goes into 10 3 times, because $3 \times 3 = 9$. Just like before, I have a remainder of 1 which I need to carry over to the ones column.

$$\begin{array}{r} 13 \\ 3 \overline{)409} \\ 11 \end{array}$$

Finally, I work on my ones column. Because of the remainder that has been carried over, my 9 becomes 19. 3 goes into 19 6 times, This is because $3 \times 6 = 18$. Now because 3 only goes into 18 and not 19 we have to write our extra remainders next to our answer. $18 + 1 = 19$, so my remainder would be 1.

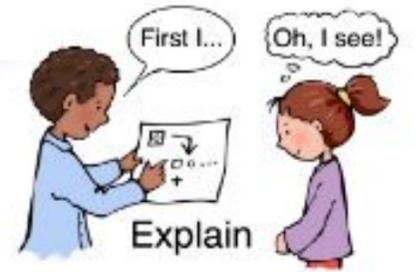
$$\begin{array}{r} 136r1 \\ 3 \overline{)409} \\ 11 \end{array}$$

I need to include the remainders because if I didn't then the answer would not be correct.

3×136 only equals 408, not 409 so I need to write my remainders to ensure when I multiply 3×136 I can add the remainder to make it 409.



Warm up - Can you spot the errors?



			8	1		
	4		3	3	4	4

$$344 \div 4 = 81$$

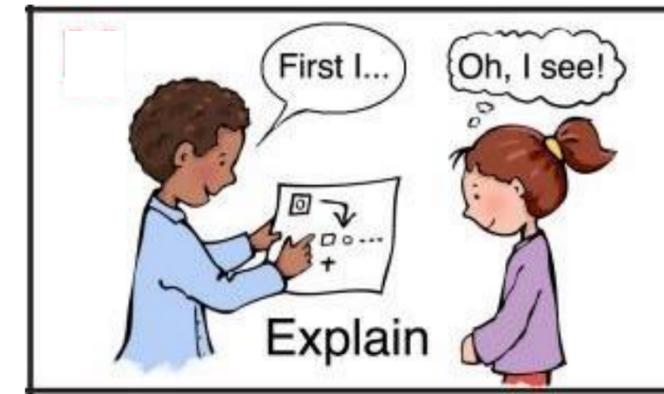
			1	6	1	
	5		8	3	0	1

$$801 \div 5 = 161$$



Talk Task - Division with remainders

1. Write two problems for both questions which requires the same calculation but will interpret the remainders differently. The first one has been done for you.
2. Solve the equations.



The apartments in the Olympic village hold six people each. There are 50 people. How many apartments are needed?

$$50 \div 6 =$$

$$34 \div 5 =$$



Interpreting remainders using short division



1. Solve the word problems, interpreting remainders correctly.
2. Write a word problem for the 3 calculations presented and solve.
3. Estimate before each question and use short division.

Solve these problems, interpreting remainders correctly	Solve these calculations and then write a Maths story for each
The apartments in the Olympic village hold six people each. There are 1352 people. How many apartments are needed?	$4361 \div 5 =$
950 Olympic medals are packed into boxes of nine. How many full boxes will there be?	$1562 \div 7 =$
An arena has rows with 12 seats in each. 650 spectators fill the seats in full rows from the front. How many rows will have people in them?	$746 \div 8 =$



Solve these problems, interpreting remainders correctly

The apartments in the Olympic village hold six people each. There are 1352 people. How many apartments are needed?

950 Olympic medals are packed into boxes of nine. How many full boxes will there be?

An arena has rows with 12 seats in each. 650 spectators fill the seats in full rows from the front. How many rows will have people in them?

Solve these calculations and then write a Maths story for each

$$4361 \div 5 =$$

$$1562 \div 7 =$$

$$746 \div 8 =$$



Challenge Slide

How many different strategies can you use to solve the problem below?

Be flexible and consider demonstrating both mental and formal methods.



An arena has rows with 12 seats in each.
649 spectators fill the seats in full rows from
the front.

How many full rows of people are there?

How many rows are there with people sat in
it?



Use bar models and area models to help represent your reasoning



Kensuke's Kingdom

By Michael Morpurgo

Read chapter 5 - pages 69 – 73

Inference

1) Why isn't the old man wearing anything but a pair of breeches (pg69)?

2) How does the old man feel on page 70? Why do you think he feels this way?

3) What was strange about the way Stella Artois was acting towards Kensuke (pg72)

4) Why do you think Michael feels betrayed by the actions of Stella Artois (pg73)?

5) How do you think Kensuke ended up on the island?

Writing a Diary Entry

Planning

You are going to write a diary entry from the perspective of a person who has been stranded on an island.

Things to think about: How long have you been stranded? What does the island look like? Is anyone with you? How did you end up there? How are you feeling?

	Examples
<p>When? The date, yesterday, today, tomorrow, on the weekend</p>	
<p>Where? at home, in the garden, inside, outside, at the park</p>	
<p>Who? I, we, mum, dad, grandma, grandpa, uncle, aunt, cousin, brother, sister</p>	
<p>What? Went, travelled, visited, saw, looked, swimming, cinema, played</p>	
<p>How? Drove, flew, ran, walked, rode</p>	
<p>Feeling? Happy, sad, excited, bored, tired</p>	

Texture

Texture is one of the seven elements of art. It is used to refer to the way an art piece might feel when touched, or in 2D artworks (painting or drawing), how it looks like it feels.

This depends on how the artist has used lines, colour, shading, light and angles. Look at the pieces below and describe the way the artist has used texture to create water.



What texture has been used to create water in this image?

This artist has used layers of curved lines to create a water like pattern. This reminds me of the waves at a beach, during a storm. Or maybe a rapid river flowing down the side of a mountain over rocks and rapids.



What texture has been used to create water in this image?

What texture has been used to create water in this image? _____



What texture has been used to create water in this image? _____

Below you are going to try to draw some textures in each cube.

Example;



Your task:

1. Look around the room you are in. Try to find something with an interesting texture. (a brick wall, a fluffy blanket, a shiny vase)
2. Try drawing this texture in one of the boxes below.
3. Repeat this at least 4 times.

Challenge:

If you want to, try to fill the entire table below!

Long *a* sound

SOUND	SPELLING
	
	1. a_e 2. ai 3. ay

Fill in the correct spelling for the long a sound in the following words

a_e

ai

ay

g__m__

br__n

rem__n

cl__m

pr__

n__m__

sw__

pl__c__

f__led

s__lor

betr__

w__st__

sn__k__

gr__n

del__

str__

t__m__

br__k__

tr__ler

expl__n

dec__

merm__d

f__k__

gr__d__

holid__

spr__n

t__l

ai, eigh, ay sounds

C	N	Y	X	R	S	E	P	A	R	G	D	I	V
A	D	B	D	A	B	A	T	E	N	E	A	R	L
L	N	L	E	A	D	L	A	Y	I	X	Y	Y	A
H	M	G	A	E	X	I	A	A	G	P	M	A	N
E	S	C	A	P	E	S	A	A	B	L	A	I	E
G	I	E	S	A	B	R	A	V	E	A	I	L	A
H	O	L	I	D	A	Y	I	P	A	I	L	C	I
X	D	Y	W	G	A	E	T	R	W	N	A	M	C
I	A	A	N	E	H	Y	R	Y	B	P	M	Y	A
S	S	A	A	E	A	T	A	E	L	C	A	G	L
L	I	A	I	L	W	A	I	T	A	E	I	L	Y
A	T	M	E	A	I	A	N	D	D	M	N	T	L
B	W	D	C	W	E	I	G	H	A	N	E	I	E
E	E	C	A	V	E	R	I	Y	L	E	G	Y	E

- BRAVE
- EXPLAIN
- MAY
- DAY
- GRAPE
- MAIN
- EIGHT
- WAIT
- SAY
- HOLIDAY
- WEIGH
- LANE
- ESCAPE
- ATE
- CAVE
- MAIL
- DELAY
- TRAIN

Choose 5 words and write them each in a different sentence.
