



HELLO!

Today we are going to revise short and long
division

Arithmetic Warm Up

1. $56 \div 8 =$

2. $456 \div 100 =$

3. $195 \div 5 =$

Revision on short and long division



Now we are going to revise:



Short division



Long division



Know when you would use long or short division

Revision: Short division with remainders

$1 \times 4 = 4$

$2 \times 4 = 8$

$3 \times 4 = 12$

$4 \times 4 = 16$

$5 \times 4 = 20$

$6 \times 4 = 24$

$7 \times 4 = 28$

$8 \times 4 = 32$

$9 \times 4 = 36$

$$4 \overline{) 1574}$$

Write the remainder as a **fraction**
and a **decimal**:

Talk through
each part of
this short
division

Question 1



Complete

6 pencils cost **£1.68**



3 pencils and 1 rubber cost **£1.09**



What is the cost of **1 rubber**?

1. What do you notice?
2. What do you know?
3. Can you show your working out?
4. How could you extend the question?

Revision: Long Division

1. Divide
2. Multiply
3. Subtract
4. Bring down

$1 \times 13 = 13$
$2 \times 13 = 26$
$3 \times 13 = 39$
$4 \times 13 = 52$
$5 \times 13 = 65$
$6 \times 13 = 78$

Couldn't I just
use short
division?



$13 \overline{) 4361}$

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Worked out answer

$$\begin{array}{r}
 335 \text{ r } 6 \\
 13 \overline{) 4361} \\
 \underline{39} \\
 46 \\
 \underline{39} \\
 71 \\
 \underline{65} \\
 6
 \end{array}$$

$1 \times 13 = 13$

$2 \times 13 = 26$

$3 \times 13 = 39$

$4 \times 13 = 52$

$5 \times 13 = 65$

The remainder
can also be
written as:

$$\frac{6}{13}$$

Talk through
the method for
this long
division again

Question 2



Use the space provided to complete the following question.

Circle the numbers that represent the remainder after the division $328 \div 24$

$$\frac{1}{2} \quad \frac{2}{3} \quad 24 \quad 16 \quad \frac{16}{24}$$

1. What do you notice?
2. What do you know?
3. Can you show your working out?
4. How could you extend the question?

Let's review:



I can use the correct method for both short and long division



I understand when it is best to use long division rather than short division

Draw a circle around the smiley face to show how you feel about what we've just been doing.



CHALLENGE



Complete

Olivia buys three packets of nuts.



She pays with a £2 coin.

This is her change.



What is the cost of **one** packet of nuts?

1. What do you notice?
2. What do you know?
3. Can you show your working out?
4. How could you extend the question?

Short division with remainders

Here is another example.

$$\begin{array}{r} 5 \overline{) 267} \end{array}$$

$$5 \times \underline{5} = 25$$

← 5 goes into 25 five times.

26 - 25 = 1, so 1 ten is exchanged for 10 ones and written in the ones column.

$$5 \times \underline{3} = 15$$

← 5 goes into 15 three times, but we have 17.

$$17 - 15 = \underline{2}$$

← 2 is the remainder.

So, $267 \div 5 =$

Short division with remainders

Solve the problem. Write R for the remainder if needed.

$$\begin{array}{r} \boxed{} \\ 4 \overline{) 286} \end{array}$$

$$4 \times \boxed{} = \boxed{}$$

$$4 \times \boxed{} = \boxed{}$$

$$6 - \boxed{} = \boxed{}$$

Long division

17 does not go into 2.

17 goes into 23 one time.

The long division method is one way to divide.

Think about $238 \div 17$.

1. Divide
2. Multiply
3. Subtract
4. Bring down

$1 \times 17 = 17$
$2 \times 17 = 34$
$3 \times 17 = 51$
$4 \times 17 = 68$
$5 \times 17 = 85$

$$17 \overline{) 238}$$

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