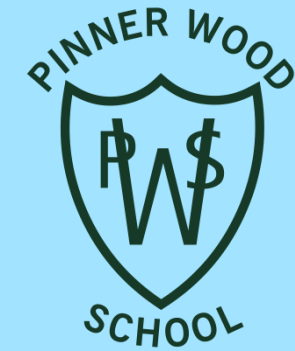




**Welcome to our calculations  
evening.**  
**Year 5**





$$\begin{array}{ccc} 425 & \div & 25 \\ \nearrow & & \nwarrow \\ \text{dividend} & & \text{divisor} \end{array}$$

For this presentation we will be going through the formal written method of long division that we teach the children.

This is just one aspect of the strategies shown and used in Year 5.



# Mental Maths starter (5mins)

## Maths Loop Game

Each of you have a card. It has a question and an answer. Someone will have a start card. They will begin the game. If you have an answer to the question shout it out.

6 and 8 times tables loop cards

I have 64	$2 \times 8 =$	I have 16	five lots of six
I have 30	six times eight	I have 48	one multiplied by six

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# Main teaching (10 mins)

The example that we will be going through:

$$25 \overline{) 425}$$



# Main teaching (10 mins)

$$\begin{array}{c} 425 \div 25 \\ \text{dividend} \quad \text{divisor} \end{array}$$

$$25 \overline{)425}$$

The first digit of the dividend (4) is divided by the divisor.

$$\begin{array}{r} 0 \\ 25 \overline{)425} \end{array}$$

The whole number result is placed at the top. Any remainders are ignored at this point.

$$\begin{array}{r} 0 \\ 25 \overline{)425} \\ \underline{0} \end{array}$$

The answer from the first operation is **multiplied** by the divisor. The result is placed under the number divided into.

$$\begin{array}{r} 0 \\ 25 \overline{)425} \\ \underline{0} \\ 4 \end{array}$$

Now we **subtract** the bottom number from the top number.



# Main teaching (10 mins)

$$\begin{array}{r} 0 \\ 25 \overline{)425} \\ \underline{0\downarrow} \\ 42 \end{array}$$

Bring down the next digit of the dividend.

$$\begin{array}{r} 0 \\ 25 \overline{)425} \\ \underline{0\downarrow} \\ 42 \end{array}$$

**Divide** this number by the divisor.

$$\begin{array}{r} 01 \\ 25 \overline{)425} \\ \underline{0\downarrow} \\ 42 \end{array}$$

The whole number result is placed at the top.  
Any remainders are ignored at this point.

$$\begin{array}{r} 01 \\ 25 \overline{)425} \\ \underline{0\downarrow} \\ 42 \\ \underline{25} \end{array}$$

The answer from the above operation is **multiplied** by the divisor. The result is placed under the last number divided into.



# Main teaching (10 mins)

$$\begin{array}{r} 01 \\ 25 \overline{)425} \\ \underline{0\downarrow} \\ 42 \\ \underline{25} \\ 17 \end{array}$$

Now we **subtract** the bottom number from the top number.

$$\begin{array}{r} 01 \\ 25 \overline{)425} \\ \underline{0\downarrow} \\ 42 \\ \underline{25} \\ 175 \end{array}$$

Bring down the next digit of the dividend.

$$\begin{array}{r} 01 \\ 25 \overline{)425} \\ \underline{0\downarrow} \\ 42 \\ \underline{25} \\ 175 \end{array}$$

**Divide** this number by the divisor.



# Main teaching (10 mins)

$$\begin{array}{r} 017 \\ 25 \overline{)425} \\ \underline{0} \phantom{0} \\ 42 \phantom{0} \\ \underline{25} \phantom{0} \\ 175 \end{array}$$

The whole number result is placed at the top. Any remainders are ignored at this point.

$$\begin{array}{r} 017 \\ 25 \overline{)425} \\ \underline{0} \phantom{0} \\ 42 \phantom{0} \\ \underline{25} \phantom{0} \\ 175 \\ \underline{175} \end{array}$$

The answer from the above operation is **multiplied** by the divisor.

$$\begin{array}{r} 017 \\ 25 \overline{)425} \\ \underline{0} \phantom{0} \\ 42 \phantom{0} \\ \underline{25} \phantom{0} \\ 175 \\ \underline{175} \\ 000 \end{array}$$

The result is placed under the number divided into. Now we **subtract** the bottom number from the top number.





# Parent's activity (5 mins)

You will now have a chance to try out some questions.  
Have a go!

Example

			1	5	0	r2	1
2	4	3	6	2	1		
	-	2	4	↓	↓		
		1	2	2	↓		
		1	2	0	↓		
			2	1			

1.  $241 + 17 =$


2.  $965 + 31 =$


3.  $1415 + 12 =$


4.  $4465 + 19 =$


5.  $1946 + 31 =$


6.  $1371 + 40 =$


7.  $6527 + 31 =$


8.  $4895 + 46 =$




# Parent's activity (5 mins)

Here are the answers

## Long Division Practice Worksheet: Answers

question	answer
1	$241 \div 17 = 14 \text{ r}3$
2	$965 \div 31 = 31 \text{ r}4$
3	$1415 \div 12 = 117 \text{ r}11$
4	$4465 \div 19 = 235$
5	$1946 \div 31 = 62 \text{ r}24$
6	$1371 \div 40 = 34 \text{ r}11$
7	$6527 \div 31 = 210 \text{ r}17$
8	$4895 \div 46 = 106 \text{ r}19$
9	$8572 \div 39 = 219 \text{ r}31$
10	$9109 \div 50 = 182 \text{ r}9$
11	$9758 \div 48 = 203 \text{ r}14$
12	$15\,245 \div 62 = 245 \text{ r}55$



# Any questions?

