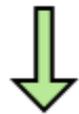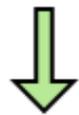# Where to find help:

COURT LANE JUNIOR
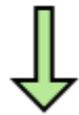
www.courtlanejnr.co.uk

INFORMATION

⬇

CURRICULUM

⬇

MATHS CURRICULUM

Supporting documents (strategies, expectations and schemes of work)

⬇

USEFUL VIDEOS

Demonstrations for some of the strategies used for four operations

MATHS NO PROBLEM!

Maths No Problem! Parent Videos

Videos explaining key concepts from the Maths No Problem Scheme

BBC BITESIZE KS2 Maths

KS2 Maths - BBC Bitesize

Or speak to your child's class teacher

Strategies for Addition:

Expanded column method:

$$
\begin{array}{r}
2\ 8\ 1\ 7 \\
+\ 4\ 5\ 6\ 4 \\
\hline
1\ 1 \quad \text{Ones} \\
7\ 0 \quad \text{Tens} \\
1\ 3\ 0\ 0 \quad \text{Hundreds} \\
6\ 0\ 0\ 0 \quad \text{Thousands} \\
\hline
7\ 3\ 8\ 1 \\
\end{array}
$$

Add the ones and write that on the first row (lining up the digits in the correct place value columns). Repeat for the tens on the second row, the hundreds on the third row and the thousands on the fourth row. Finally, add the values together using column addition.

Compact column method:

$$
\begin{array}{r}
2\ 8\ 1\ 7 \\
+\ 4\ 5\ 6\ 4 \\
\hline
1 \\
1 \\
\end{array}
$$

Add the ones and write that under the ones. If the total is a two-digit number, rename under the tens column.

$$
\begin{array}{r}
2\ 8\ 1\ 7 \\
+\ 4\ 5\ 6\ 4 \\
\hline
8\ 1 \\
1 \\
\end{array}
$$

Add the tens and any renaming from the ones column, then write the total in the tens column. If the total is a two-digit number, rename under the hundreds.

$$
\begin{array}{r}
2\ 8\ 1\ 7 \\
+\ 4\ 5\ 6\ 4 \\
\hline
3\ 8\ 1 \\
1\ \ \ 1 \\
\end{array}
$$

Add the hundreds and any renaming from the tens column, then write the total in the hundreds column. If the total is a two-digit number, rename to the thousands.

$$
\begin{array}{r}
2\ 8\ 1\ 7 \\
+\ 4\ 5\ 6\ 4 \\
\hline
7\ 3\ 8\ 1 \\
1\ \ \ 1 \\
\end{array}
$$

Add the thousands and any renaming from the hundreds column, then write the total in the thousands column. If the total is a two-digit number, rename to the ten thousands.

Adding decimals:

$$15.98 + 8.3 =$$

$$
\begin{array}{r}
1\ 5\ .\ 9\ 8 \\
+\ \ \ \ 8\ .\ 3\ 0 \\
\hline
2\ 4\ .\ 2\ 8 \\
1\ \ \ \ 1 \\
\end{array}
$$

Adding with decimals applies the same process as the compact column method, but children must line up the decimal points to ensure the place value columns are lined up. This is particularly important if the two numbers being added having different numbers of decimal places. Zeros are used to fill the empty columns as placeholders.

Strategies for Subtraction:

Column method:

If the digit below is greater than the digit above, rename from the tens column. Subtract the ones and write under the ones.

If the digit below is greater than the digit above, rename from the hundreds column. Subtract the tens and write under the tens.

If the digit below is greater than the digit above, rename from the thousands column. Subtract the hundreds and write under the hundreds.

Subtract the thousands and write under the thousands.

6000 - 3286 =

Subtract one from both:
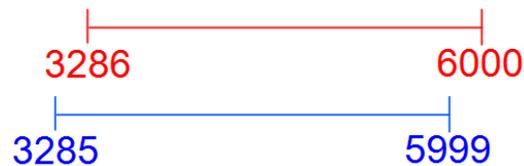

I can use column method, but there will be a lot of renaming, which increases the chance of making a mistake.
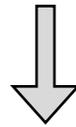
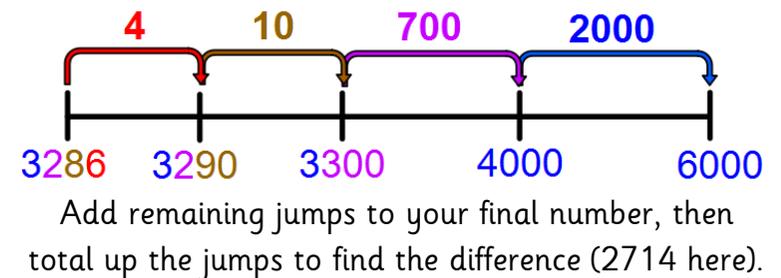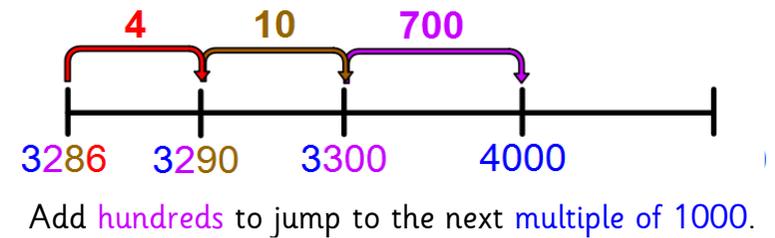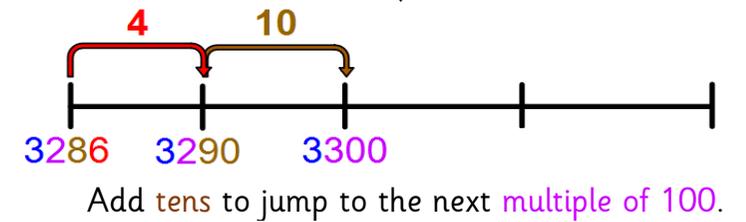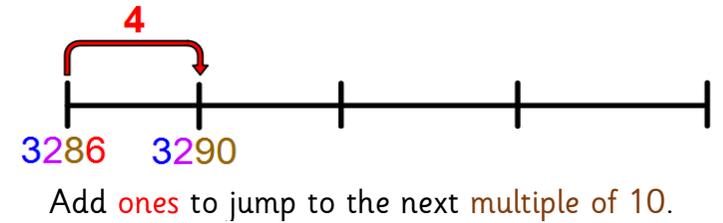If I subtract one from both numbers, the difference (gap) between the two numbers remains the same, but we don't need to do any renaming.

This is particularly useful for money problems (e.g., items cost £13.65 and you pay with a £20 note, how much change do you get?)

Number line to find the difference:

Add ones to jump to the next multiple of 10.

Add tens to jump to the next multiple of 100.

Add hundreds to jump to the next multiple of 1000.

Add remaining jumps to your final number, then total up the jumps to find the difference (2714 here).

Strategies for Multiplication:

EXAMPLE METHODS FOR: 218 x 4
multiplicand   multiplier

Partitioning:

218

200   10   8

x4   x4   x4

800   40   32

872

Partition the number into hundreds, tens and ones, multiply each part by the multiplier, then add the parts together to reach an answer.

Expanded column method:

	H	T	O
	2	1	8
x			4
	3	2	(4 x 8 = 32)
	4	0	(4 x 10 = 40)
+ 8	0	0	(4 x 200 = 800)
	8	7	2

Multiply the ones by the multiplier and write that on the first row (lining up the digits in the correct place value columns). Repeat for the tens on the second row, and the hundreds on the third row. Finally, add the values together using column addition.

Compact column method:

	H	T	O
	2	1	8
x			4
			2
		3	

Multiply the ones by the multiplier and write that under the ones. If the product is a two-digit number, rename under the tens column.

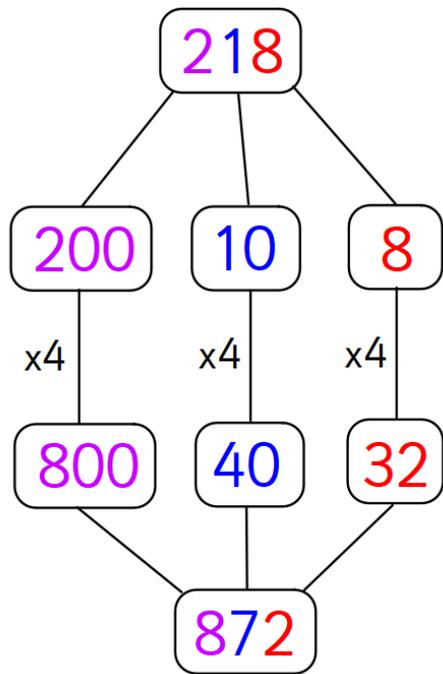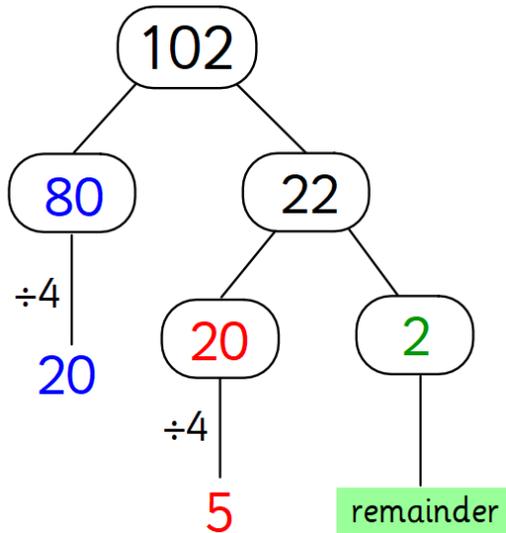|	H	T	O
	2	1	8
x			4
		7	2
		3	

Multiply the tens by the multiplier. Add any renaming from the ones column, then write the total in the tens column. If the product is a two-digit number, rename under the hundreds.

	H	T	O
	2	1	8
x			4
	8	7	2
		3	

Multiply the hundreds by the multiplier. Add any renaming from the tens column, then write the total in the hundreds column. If the product is a two-digit number, rename to the thousands.

Strategies for Division:

EXAMPLE METHODS FOR: **102 ÷**
dividend · divisor

4

BUSSTOP:

Partitioning:

102

80 · 22

÷4 | 20

20 · 2

÷4

5 · remainder

First, partition the dividend into the largest multiple of the divisor you can (80), and whatever is left over (22). Then partition what is left over (22) into the largest multiple of the divisor (20) and whatever is left over (2). Divide each part by the divisor and add together to reach your answer (25). Whatever is left over (that cannot be divided by the divisor) is the remainder (2).

Repeated subtraction:

$$2\ 5\ r\ 2$$

4 | 1 0 2

− 8 0 (20 x 4)

2 2

− 2 0 (5 x 4)

2
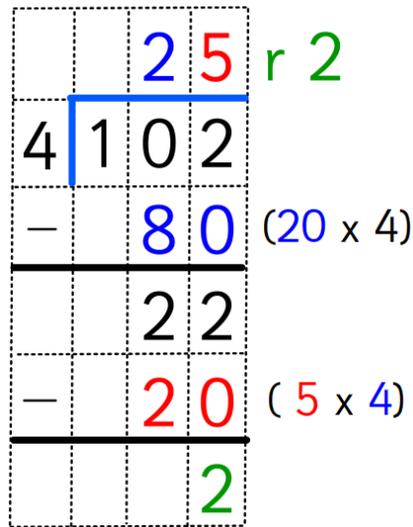
Division is repeated subtraction: you have to work out how many lots of the divisor go into the dividend; so this method involves subtracting the largest chunks of the divisor that you can, until you cannot subtract any more.

If you record how many lots of the divisor you are subtracting, you answer will be the total number of lots that are subtracted. Whatever is left over is the remainder.
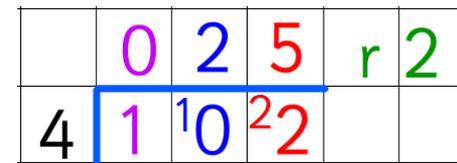
0

4 | 1 ^{1}0 2

0 2

4 | 1 ^{1}0 ^{2}2

0 2 5 r 2

4 | 1 ^{1}0 ^{2}2
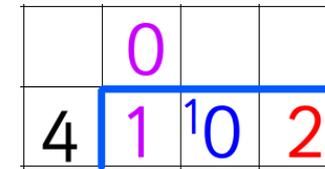
First, look at how many lots of the divisor go into the hundreds. Write the number of lots above the hundreds digit. Anything left over is renamed to the tens.
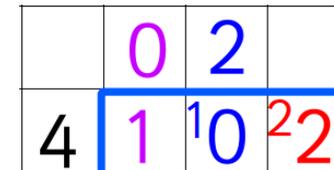
Next, look at how many lots of the divisor go into the tens (including any renamed from the hundreds). Write the number of lots above the tens digit. Anything left over is renamed to the ones.

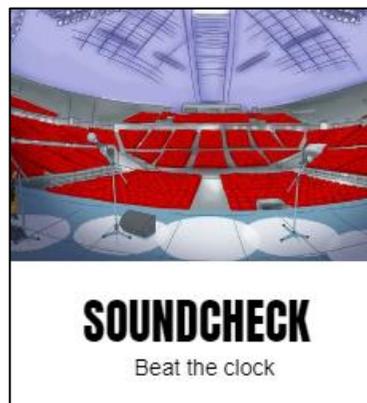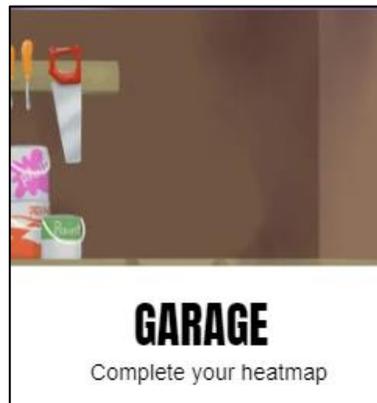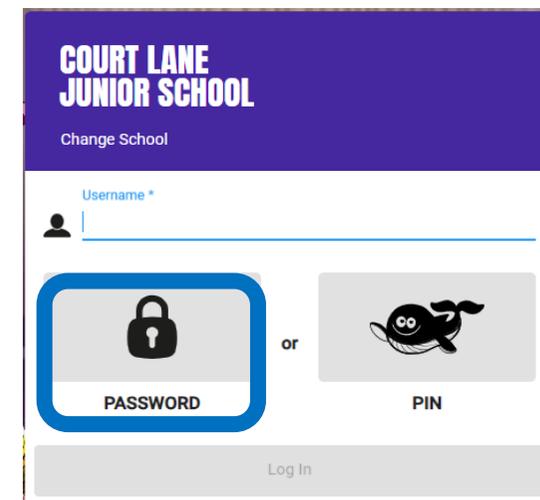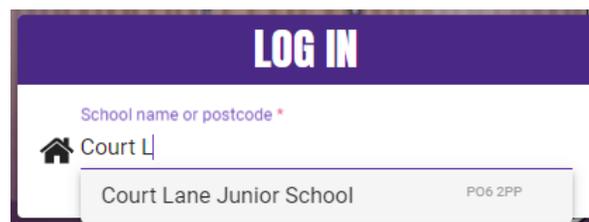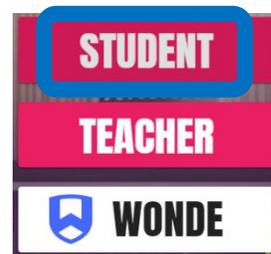Finally, look at how many lots of the divisor go into the ones (including any renamed from the tens). Write the number of lots above the ones digit. Anything left over is the remainder.

How to help your child with TTRS:

1. Go to the website: https://play.ttrockstars.com
2. Select "School" then "Student"
3. Type in the name of the school (if you start typing Court Lane, it should come up)
4. Type in the child's username (as given by the teacher)
5. Select password and type the password in.

SCHOOL
FAMILY
TUTOR

STUDENT
TEACHER
WONDE

COURT LANE JUNIOR SCHOOL
Change School

Username *

PASSWORD   or   PIN

Log In

LOG IN

School name or postcode *

Court L

Court Lane Junior School   PO6 2PP

JAMMING
Take it easy

- No timer
- Select multiplication only, division only or a mixture of both.
- Select a specific table to practise

GARAGE
Complete your heatmap

- Set the duration of the game (1, 2 or 3 mins)
- Practise all tables you have been set
- See how many you can get right in the time

SOUNDCHECK
Beat the clock

- 25 questions
- 6 seconds per question (like the Multiplication Check at the end of Year 4)

STUDIO
Get a rock status

- This is how you get a TTRS status (need to complete 10 studios initially)

GIG
Perform once a month

- 5 minutes
- Evaluates which tables children need to focus on (use as a check each month, then use jamming to practise those tables)