## Session 3- Multiplication 4 digits by 2 digits



|  |  | 2 | 5 | 3 | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\times$ |  |  |  | 2 | 3 |
|  |  | $1^{7}$ | 5 | $1^{9}$ | 2 |
|  |  | 5 | 0 | 6 | 8 |
|  | 1 | 2 | 6 | 6 | 0 |

Find the product of 5,604 and 81

Calculate 9,999 x 99 (What other method could you have used? )

| Tricky |  |  |  |  |  |  |  | Trickier (Ctd) | Trickiest |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 2 | 4 | 43 | 3 | 3 | $\left.\begin{array}{l} (2,433 \times 2 \\ (2,433 \times 10 \end{array}\right)$ | See manual workings in previous column$\begin{aligned} & 4352 \times 12=52,224 \\ & 3231 \times 13=42,003 \\ & 16 \times 1234=19,744 \\ & 19 \times 1132=21,508 \\ & 4561 \times 14=63,854 \\ & 4324 \times 19=82,156 \end{aligned}$ | $\begin{aligned} & 6543 \times 21=137,403 \\ & 2342 \times 43=100,706 \\ & 4511 \times 23=103,753 \\ & 8001 \times 26=, 208,026 \\ & 5037 \times 15=75,555 \\ & 9261 \times 11=101,871 \\ & 74 \times 1156=85,544 \\ & 49 \times 3860=189,140 \end{aligned}$ |
| $\times$ |  |  |  |  | 1 2 | 2 |  |  |  |
|  |  | 4 | 48 | 86 | 66 | 6 |  |  |  |
| + | 2 | 4 | 3 | 3 3 | 30 | 0 |  |  |  |
|  | 2 | 9 | 91 | 19 | 96 | 6 |  |  |  |
|  |  | 1 | 1 |  |  |  |  |  |  |
|  |  |  | 2 | 4 | 3 | 3 |  |  |  |
| $\times$ |  |  |  |  | 1 | 7 |  |  |  |
|  | 1 |  | 73 | $\mathrm{O}_{2}$ | 3 | 1 | $\left.\begin{array}{l} (2,433 \times 7 \\ (2,433 \times 10 \end{array}\right)$ |  |  |
| + | 2 |  | 4 | 3 | 3 | 0 |  |  |  |
|  | 4 | , | 1 | 3 | 6 | 1 |  |  |  |
|  |  | 1 |  |  |  |  |  |  |  |
|  |  | 2 | 4 | 43 | $3 \quad 3$ |  |  |  |  |
| $\times$ |  |  |  |  | 31 |  |  |  |  |
|  |  | 2 | 4 | 43 | 33 |  |  |  |  |
| + | 7 | 2 | 9 | 99 | 90 |  |  |  |  |
|  | 7 | 5 | 5 | 42 | 23 |  |  |  |  |
| TRICKIER |  |  |  |  |  |  |  |  |  |
|  |  | 1 | 3 | 4 | 5 |  |  |  |  |
| $\times$ |  |  |  | 2 | 5 |  | $(1,345$ <br> $(1,345) \times 20$ <br> 2 |  |  |
|  |  |  | 72 | 2 | 5 |  |  |  |  |
|  | 2 | 6 |  | 0 | 0 |  |  |  |  |
|  | 3 | 3 | 6 | 2 | 5 |  |  |  |  |
|  |  | 1 |  |  |  |  |  |  |  |
|  |  | 5 | 0 | 1 | 12 |  |  |  |  |
| $\times$ |  |  |  |  | 19 |  | $(5,012 \times 5$ ( 5 ( $5,012 \times 5$, |  |  |
|  | 4 | 5 | 1 | 1.0 | 0, 8 |  |  |  |  |
|  | 5 | 0 | 1 | 2 | 20 |  |  |  |  |
|  | 9 | 5 | 2 | 2 | 28 |  |  |  |  |
|  |  | 2 | 7 | 0 | ) 8 |  |  |  |  |
| ' |  |  |  | 3 | 34 |  | $(2,708$$(2,708$$(20)$ |  |  |
|  | 1 | $\mathrm{O}_{2}$ | 8 | 33 | $3_{3} 2$ |  |  |  |  |
|  | 82 | 1 | 2 | 2 | 40 |  |  |  |  |
|  | 9 | 2 | 0 | 7 | 72 |  |  |  |  |
|  |  | 1 |  |  |  |  |  |  |  |

## Spot the Mistakes

Can you spot and correct the errors in the calculation?

|  |  | 2 | 5 | 3 | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\times$ |  |  |  | 2 | 3 |
|  |  | 7 | 5 | $1^{9}$ | 2 |
|  |  | $1^{5}$ | 0 | 6 | 8 |
| 1 | 2 | 6 | 6 | 0 |  |
|  |  |  |  |  |  |

There are 2 errors. In the first line of working, the exchanged ten has not been added. In the second line of working, the place holder is missing.
The correct answer should be 58,282

A shop buys football shirts for $£ 39$ each and sells them for $£ 49$ each.
A) The shop buys 2,700 football shirts. How much does it cost? £105,300
B) The shop sells all the football shirts, how much profit does it make? $£ 27,000$

989,901
Possible methods include:
using the column method to work out 9,999 $\times 99$
working out $9,999 \times 100$ and subtracting 9,999
working out 10,000 $\times 99$ and subtracting 99

