

# Discussion Problems

## Step 2: Multiply 4-Digits by 2-Digits

### National Curriculum Objectives:

Mathematics Year 6: (6C7a) [Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication](#)

Mathematics Year 6: (6C8) [Solve problems involving addition, subtraction, multiplication and division](#)

### About this resource:

This resource has been designed for pupils who understand the concepts within [this step](#). It provides pupils with more opportunities to enhance their reasoning and problem solving skills through more challenging problems. Pupils can work in pairs or small groups to discuss with each other about how best to tackle the problem, as there is often more than one answer or more than one way to work through the problem.

There may be various answers for each problem. Where this is the case, we have provided one example answer to guide discussion.






We recommend self or peer marking using the answer page provided to promote discussion and self-correction.

More [Year 6 Four Operations](#) resources.






Did you like this resource? Don't forget to [review](#) it on our website.

## Multiply 4-Digits by 2-Digits

1. The amounts of money saved by five people have been ordered from smallest to greatest below.

				
Amy	Benji	Chloe	Dante	Ellie
£1,031	£2,571	£3,115	£3,714	£9,618

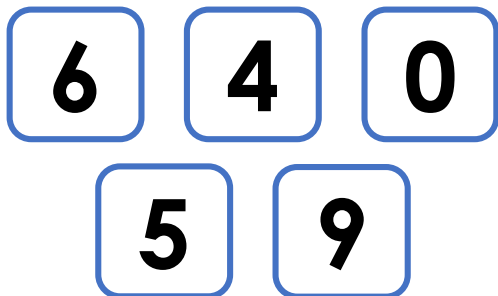
The computer at their bank malfunctions, and each amount is then multiplied by a different 2-digit number between 10 and 60. The new order is shown below.

				
Dante	Chloe	Amy	Ellie	Benji

Investigate what the different 2-digit numbers could have been.

DP

2. Alfie uses the digit cards to complete the calculation below.



$$\begin{array}{r}
 2 \square 3 \square \\
 \times \quad \square 7 \\
 \hline
 \end{array}$$

He says,








The answer must be between 130,000 and 140,000. Explore which digits I could use in the calculation.

DP

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£1,031	£2,571	£3,115	£3,714	£9,618

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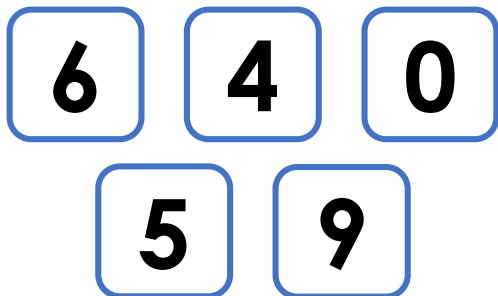


Investigate what the different 2-digit numbers could have been.

Various answers, for example: A = £58,767 (£1,031 x 57); B = £110,553 (£2,571 x 43); C = £56,070 (£3,115 x 18); D = £55,710 (£3,714 x 15); E £105,798 (£9,618 x 11)

DP

2. Alfie uses the digit cards to complete the calculation below.



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 \times \quad \square 7 \\
 \hline
 \end{array}$$

He says,



The answer must be between 130,000 and 140,000.  
Explore which digits I could use in the calculation.

Various answers, for example:  $2930 \times 47 = 137,710$

DP