Discussion Problems
Step 6: Divide 4 Digits by 1 Digit

National Curriculum Objectives:

Mathematics Year 5: (5C7b) Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context

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 5 Multiplication and Division resources.

Did you like this resource? Don't forget to review it on our website.

Divide 4 Digits by 1 Digit

1. Explore the ways through the maze by stepping on the 4-digit numbers that can be divided equally by 7.

<table>
<tr><td>START</td><td>4,284</td><td>1,284</td><td>7,285</td><td>9,198</td><td>7,234</td><td>9,673</td><td></td></tr>
<tr><td></td><td>7,382</td><td>6,398</td><td>7,357</td><td>4,485</td><td>8,337</td><td>8,565</td><td></td></tr>
<tr><td></td><td>8,347</td><td>9,674</td><td>3,267</td><td>5,796</td><td>9,386</td><td>7,924</td><td>FINISH</td></tr>
<tr><td></td><td>6,461</td><td>8,879</td><td>8,575</td><td>5,395</td><td>3,892</td><td>7,383</td><td></td></tr>
<tr><td></td><td>8,734</td><td>2,954</td><td>9,098</td><td>5,957</td><td>3,898</td><td>8,227</td><td></td></tr>
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</table>

> You can move in any direction; horizontally vertically or diagonally!

DP

2. Amir has won £8,472 in the lottery and wants to share it between himself and his parents.

Amir

> I am going to keep all my share.

Dad

> I am going to share mine so I, and those I share it with, get a portion of the money that has a digit sum of more than 9.

Mum

> I am going to share mine so I, and those I share it with, get a portion of the money that is an odd 3-digit number.

Investigate how much each person will receive.

DP

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1. Explore the ways through the maze by stepping on the 4-digit numbers that can be divided equally by 7. Various answers, for example:

START **4,284**	1,284	7,285	9,198	7,234	9,673
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8,347	**9,674**	3,267	5,796	9,386	**7,924** FINISH
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Investigate how much each person will receive. Various answers, for example:
Amir = £2,824; Dad and 3 friends = £706 each; Mum and 7 friends = £353 each

DP