

Discussion Problems

Step 8: Multiply by 10, 100 and 1,000

National Curriculum Objectives:

Mathematics Year 3: (3C6) [Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables](#)

Mathematics Year 3: (3C7) [Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods](#)

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.

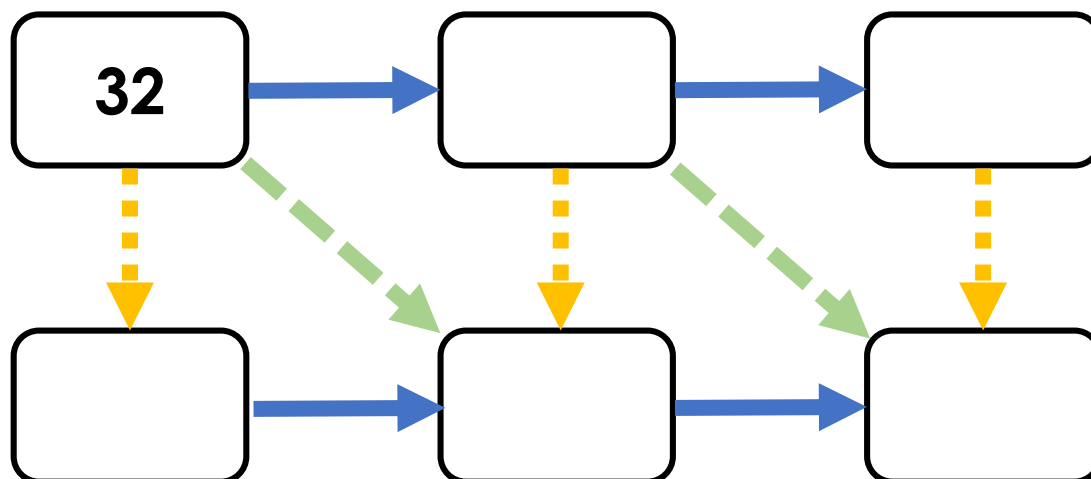
More [Year 5 Multiplication and Division](#) resources.

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

Multiply by 10, 100 and 1,000

1. Here is a puzzle. The horizontal, vertical and diagonal arrows represent either multiply by 10, 100 or 1,000.

Investigate the different ways to complete the puzzle.



DP

2. Arrange the loop cards so that each calculation is matched to the correct answer. Fill in the missing card to complete the loop.

four hundred and forty-three thousand, two hundred and ten	one thousand, four hundred and eleven multiplied by 100.	722,340	The product of 44,321 and 10.	58,500	$372 \times 100 + 159$
seven million, two hundred and twenty-three thousand, four hundred	$5,378 \times 1,000$	37,359	$585 \times 100 \times 10$	four million, four hundred and thirty-two thousand, one hundred	$72,234 \times 10$
585,000	forty-four thousand, three hundred and twenty-one multiplied by 100	5,378,000	585×100	one hundred and forty-one thousand	seventy-two thousand, two hundred and thirty-four times 10 and 10 again

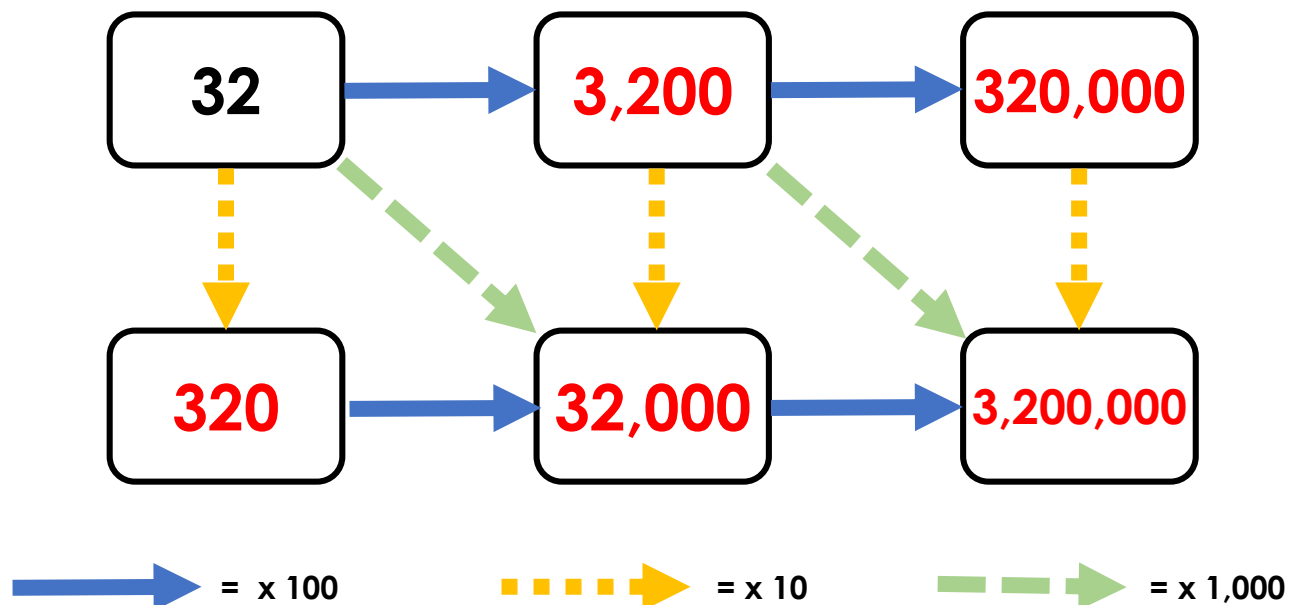
DP

Multiply by 10, 100 and 1,000

1. Here is a puzzle. The horizontal, vertical and diagonal arrows represent either multiply by 10, 100 or 1,000.

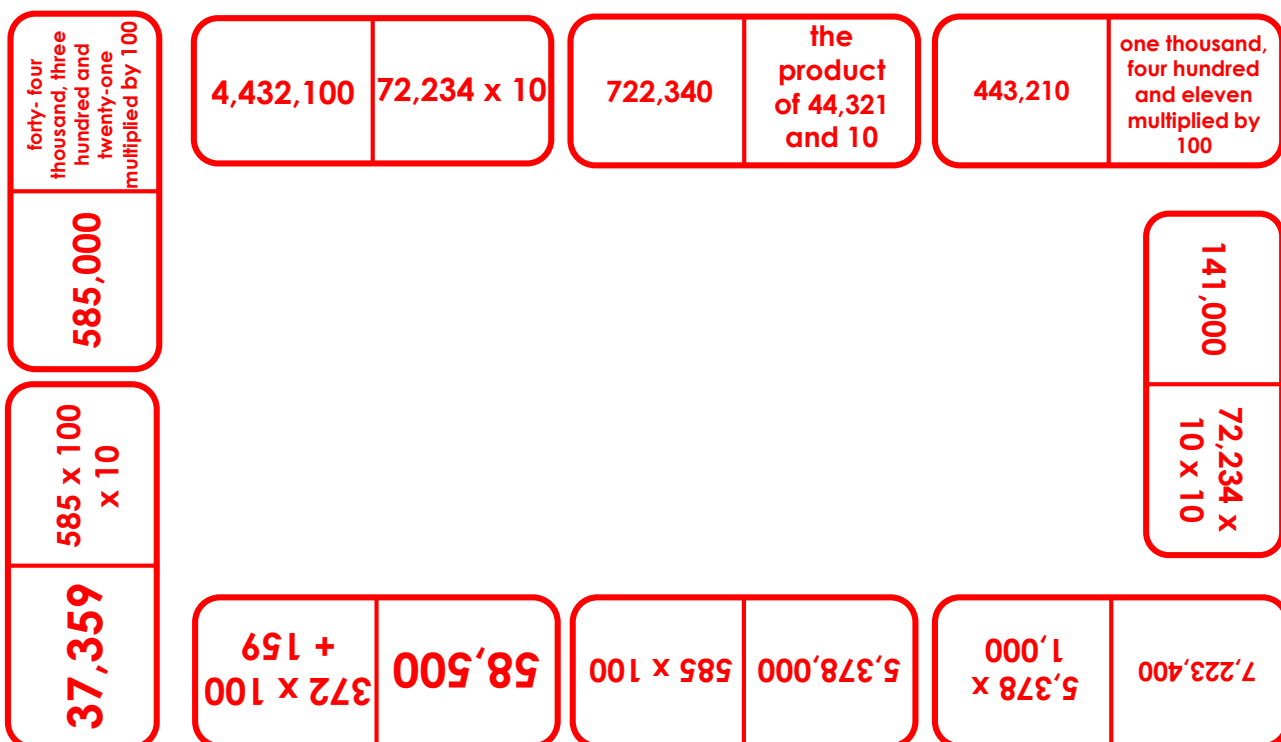
Investigate the different ways to complete the puzzle.

Various answers, for example:



DP

2. Arrange the loop cards so that each calculation is matched to the correct answer. Fill in the missing card to complete the loop.



DP