Sometimes, a dividend (the number you are dividing) cannot be divided exactly by the divisor (the number you are dividing by) and you are left with a remainder.

Today we are going to using the third way: finding the remainder as a decimal.

This is particularly useful if your problem involves money or measures – more on that tomorrow.

Can I find remainders in division problems?

**Remainder as a decimal**

**Step one:**

Set out your division in the formal method. Place the dividend (number you are dividing) inside the ‘bus stop’ and the divisor (number you are dividing by) on the outside.

**Step two:**

Starting from the left, see how many times the divisor will go into each digit of the dividend. Any remainders move onto the next digit.

**Step three:**

When you reach the last digit and still have a remainder, you need to add a decimal point above and below the bus stop AND put a place holder zero after the decimal point inside the bus stop. The remainder can then be carried over to the place holder zero:

**Step four:**

Starting from the first number after the decimal point (in this example, it is 10), see how many times the divisor will go into it. So here, we ask the question, how many times does 4 go into 10? Then use another place holder zero so that you can carry the remainder.

2 3 3

4

4

5 8

3

2

3

2 5

0 0

0

1

5 8

1

3

2

2 3 3

5 8

4

3

2

2 3 3

4

**Marvellous and Magnificent**

Give any remainders as a decimal.

1. 143 ÷ 4
2. 261 ÷ 6
3. 261 ÷ 5
4. 690 ÷ 8
5. 123 ÷ 5

**Mind-blowing**

Give any remainders as a decimal. Round to 2 decimal places if necessary (don’t go on using place holder zeros all day for really long numbers!!)

1. 854 ÷ 8
2. 4235 ÷ 8
3. 7106 ÷ 12
4. 6333 ÷ 11
5. 4299 ÷ 12

Answers on next page!

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**Answers**

Fluent in Five: 1) 420 2) 222.84 3) 222 4) 744 5) 5

Marvellous

and Magnificent: 1) 35.75 2) 43.5 3) 52.2 4) 86.25 5) 24.6

Mind-blowing: 1) 106.75 2) 529.375 or 529.38 (rounded to 2dp) 3) 592.17 (rounded to 2dp) 4) 575.73 (rounded to 2dp) 5) 358.25