

Discussion Problems

Step 7: Divide with Remainders

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 with Remainders

1. Aron is helping his dad prepare party bags for his Bar Mitzvah.

His dad has bought 1,436 sweets to share into party bags to give to the guests to take part in the tradition of sweet throwing at the event.



His dad has bought enough sweets so that there are:

A minimum
of 3 sweets
per bag

A
maximum
of 8 sweets
per bag

Some
sweets left
over

Explore the different possible combinations of number of sweets in a party bag, the number of bags made and the remaining sweets that will be left over for the family.

DP

2. Mika and Alissa work at the zoo and are responsible for making sure there is enough space for each animal.

There cannot be more than 9 animals in an enclosure.

There are 3,345 animals in the zoo.

Except one, all the enclosures have an equal number of animals in.



Investigate the different possible number of enclosures that are needed to look after the animals properly.

DP

Divide with Remainders

1. Aron is helping his dad prepare party bags for his Bar Mitzvah.

His dad has bought 1,436 sweets to share into party bags to give to the guests to take part in the tradition of sweet throwing at the event.

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A minimum
of 3 sweets
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Explore the different possible combinations of number of sweets in a party bag, the number of bags made and the remaining sweets that will be left over for the family.

Various answers, for example: 6 sweets per bag, 239 bags and 2 sweets left over.

DP

2. Mika and Alissa work at the zoo and are responsible for making sure there is enough space for each animal.

There cannot be more than 9 animals in an enclosure.

There are 3,345 animals in the zoo.

Except one, all the enclosures have an equal number of animals in.



Investigate the different possible number of enclosures that are needed to look after the animals properly.

Various answers, for example: 372 enclosures. 371 with 9 animals in and 1 with 6 animals in.

DP