

Discussion Problems

Step 6: Division to Solve Problems

National Curriculum Objectives:

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

Mathematics Year 6: (6F9c) [Use written division methods in cases where the answer has up to two decimal places](#)

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 Decimals](#) resources.

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

Division to Solve Problems

1. Connor is ordering pizzas for a party.

He says,



A small pizza provides 6 slices, a medium pizza provides 8 slices, a large pizza provides 10 slices and an XL pizza provides 12 slices. I need to order at least 50 slices of pizza.

Pizzeria	Deal	Price
Mario's Pizza	4 x Medium Pizzas	£24.96
Pizza Quick	3 x XL Pizzas	£34.92
Pizza Nut	2 x Large Pizzas	£19.80
Vinci's Pizza	3 x Large Pizzas	£25.80
Papa Tron's	2 x XL Pizzas	£27.60

Connor ends up ordering from two different pizzerias. He has spent under £55 for more than 50 pizza slices using the deals available.

Explore which two pizzerias he could have ordered from. How many extra slices of pizza does he have?

How much does each slice of pizza cost from the two pizzerias he ordered from?

DP

2. Suzanne the Sculptor has been tasked with creating some sculptures from copper for an art exhibition.

She has managed to create more than 10, but less than 15 sculptures using between 83.35m to 83.42m of copper.

She says,

Each sculpture is made out of the same amount of copper, and made using an amount with 2 decimal places.



Investigate what the length of each sculpture could be.

DP

Division to Solve Problems

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He says,



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Connor ends up ordering from two different pizzerias. He has spent under £55 for more than 50 pizza slices using the deals available.

Explore which two pizzerias he could have ordered from. How many extra slices of pizza does he have?

Various answers, for example: Pizza Nut and Mario's Pizza. Connor would have spent £44.76 for 52 slices of pizza and would have 2 slices of pizza extra.

How much does each slice of pizza cost from the two pizzerias he ordered from?

Various answers, for example: Each slice of pizza from Mario's Pizza would cost £0.78 per slice, and £0.99 per slice at Pizza Nut.

DP

2. Suzanne the Sculptor has been tasked with creating some sculptures from copper for an art exhibition.

She has managed to create more than 10, but less than 15 sculptures using between 83.35m to 83.42m of copper.

She says,

Each sculpture is made out of the same amount of copper, and made using an amount with 2 decimal places.



Investigate what the length of each sculpture could be.

Various answers, for example:

Suzanne could have created 12 sculptures in total using 83.4m of copper in total. Each sculpture would be made from 6.95m of copper.

DP