Discussion Problems
Step 8: Subtracting - Different Decimal Places

National Curriculum Objectives:

Mathematics Year 5:(5F10) Solve problems involving number up to three decimal places
Mathematics Year 5: (5M9a) Use all four operations to solve problems involving measure [for example, money] using decimal notation, including scaling

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 Decimals resources.

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

Subtracting - Different Decimal Places

1. Rachael is baking a cake, but her recipe has some jam covering some of the ingredients!

Ingredients	Weight
Plain flour	2.75kg
Self-raising flour	2.89kg
6 eggs	40g each
Jam	
Sugar	
Margarine	

Rachael knows that the total weight of the ingredients is 8.74kg. Explain how she could use this to find the weight of the missing ingredients.

Find possible values for the weight of jam, sugar and margarine.

DP

2. The images below show the average speed of each car in a race in miles per hour.

The cars in third and fourth place travelled at average speeds of more than 185mph, but had a slower average speed than the runner up.

The difference in average speed between the cars in first and second place is less than the difference in speed between the third and fourth place cars.

What are the different possibilities for the average speed for the third and fourth place cars?

1st place - 201.99mph	2nd place - 197.42mph	3rd place - ? mph	4th place - ? mph

DP

Subtracting - Different Decimal Places

1. Rachael is baking a cake, but her recipe has some jam covering some of the ingredients!

Ingredients	Weight
Plain flour	**2.75kg**
Self-raising flour	**2.89kg**
6 eggs	**40g each**
Jam	
Sugar	
Margarine	

Rachael knows that the total weight of the ingredients is 8.74kg. Explain how she could use this to find the weight of the missing ingredients.

Rachael could subtract the weight of the ingredients that she can already see from the total weight. 8.74kg – 5.88kg = 2.86kg, so she needs 2.86kg to complete the recipe.

Find possible values for the weight of jam, sugar and margarine.
Various possible answers, for example: 0.58kg jam, 0.65kg sugar and 1.63kg margarine

DP

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The difference in average speed between the cars in first and second place is less than the difference in speed between the third and fourth place cars.

What are the different possibilities for the average speed for the third and fourth place cars?

1st place - 201.99mph	2nd place - 197.42mph	3rd place - ? mph	4th place - ? mph

The difference in speed between third and fourth place must be greater than 4.57mph (201.99mph – 197.42mph). Children may find various combinations for third and fourth place, for example: 193.86mph and 187.01mph.

DP

Discussion Problems – Subtracting - Different Decimal Places **ANSWERS**