## Reasoning and Problem Solving Step 6: Subtract Same Decimal Places

## National Curriculum Objectives:

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

## Differentiation:

Questions 1, 4 and 7 (Problem Solving)
Developing Solve a word problem involving subtracting numbers with up to two decimal places; no exchanges.
Expected Solve a word problem involving subtracting numbers with up to two decimal places; with single exchanges.
Greater Depth Solve a word problem involving subtracting numbers with up to two decimal places; with multiple exchanges.

Questions 2, 5 and 8 (Reasoning)
Developing Identify and explain a mistake in a column subtraction involving subtracting numbers with up to two decimal places; no exchanges.
Expected Identify and explain a mistake in a column subtraction involving subtracting numbers with up to two decimal places; with single exchanges.
Greater Depth Identify and explain a mistake in a column subtraction involving subtracting numbers with up to two decimal places; with multiple exchanges.

Questions 3, 6 and 9 (Problem Solving)
Developing Solve missing number calculations involving subtracting numbers with up to two decimal places; no exchanges.
Expected Solve missing number calculations involving subtracting numbers with up to two decimal places; with single exchanges.
Greater Depth Solve missing number calculations involving subtracting numbers with up to two decimal places; with multiple exchanges.

More Year 5 Decimals resources.

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

## Subtract Same Decimal Places Subtract Same Decimal Places

1a. Rajpal's bottle contains 1.85 litres of water.

Damini's bottle contains 1.25 litres of water.

How much more does Rajpal's bottle hold than Damini's?

1b. Georgia is at the bakery.
A box of rocky road slices costs $£ 2.80$.
A cream cake costs $£ \mathbf{£} \mathbf{9 0}$.
How much more is a cream cake than a box of rocky road slices?


2b. Michael has completed the following calculation but he has made a mistake.

| 3. |
| ---: |
| $-\quad 1 \quad 0$ |
| 4. |

Explain what she has done wrong.

3a. Calculate the missing numbers.


3b. The top triangle is the total of the bottom triangles. Calculate the missing numbers.


Explain what he has done wrong.

## Subtract Same Decimal Places Subtract Same Decimal Places

4a. Sarah and Joe are measuring how far they can jump.

Joe jumps 1.75m.
Altogether they jump 3.65m.
How much further does Sarah jump than Joe?

4b. Ashpreet and Zak are at the supermarket.

Ashpreet spends $£ 4.81$.
Altogether they spend $£ 9.52$.
How much less does Zak spend than Ashpreet?

5a. Abdullah has completed the following calculation but he has made a mistake.


Explain what he has done wrong.

6a. Calculate the missing numbers.


5b. Cara has completed the following calculation but she has made a mistake.


Explain what she has done wrong.

6b. Calculate the missing numbers. The top triangle is the total of the two triangles below.


## Subtract Same Decimal Places Subtract Same Decimal Places

7a. Gina drives 5.75 km from her house to pick up her friend Freddie.

She then drives towards the seaside, which is 17.62 km from her house, but stops 1.37 km before she get there, to park her car.

How far is Freddie's house from where Gina parked her car?

7b. Jessica goes shopping for presents for her family with $£ 15.66$ in her purse.

She spends $£ 7.59$ on her sister and spends £2.87 less on her brother.
She spends the rest of her money on herself.

How much money does Jessica spend on herself?

$\square$

8a. Molly has completed the following calculation but she has made a mistake.

| $8 \cdot 6^{7} 4^{14}$ |
| ---: |
| $-4 \quad 8 \quad 7$ |
| 4.27 |

Explain what she has done wrong.

9a. Calculate the missing numbers.


8b. Luka has completed the following calculation but he has made a mistake.


Explain what he has done wrong.

9b. Calculate the missing numbers. The top triangle is the total of the two triangles below.


## Reasoning and Problem Solving Subtract Same Decimal Places

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## Developing

1a. 0.6(0)L
2a. Rachel has added the ones column rather than subtracted. The answer should be 2.24 .
3a. $A=5.26, B=1.06, C=6.15, D=0.24$

## Expected

4a. 1.9(0)m
5a. Abdullah has exchanged one tenth for ten hundredths but has added an extra tenth rather than subtracted one. The answer should be 2.09.
$6 a . A=7.08, B=0.18, C=6.09, D=6.46$

## Greater Depth

7a. 10.5 km
8a. Molly has not exchanged from the ones column to the tenths column in this calculation. The answer should be 3.77. 9a. $A=1.88, B=2.41, C=4.72, D=3.89$

## Developing

1b. $£ 2.10$
2b. Michael has subtracted the tenths column incorrectly. 9-9 = 0. The answer should be 2.07 .
3b. $A=2.82, B=4.01$

## Expected

4b. £4.71
5b. Cara has exchanged one one for ten hundredths which is not correct. She should have exchanged one tenth for ten hundredths. The answer should be 2.18.
6b. $A=4.75, B=1.09, C=3.66$

## Greater Depth

7b. £3.35
8b. Luka has forgotten to deduct a tenth from the tenths column, which means her answer is incorrect. The answer should be 2.08.

9b. $A=3.39, B=2.94, C=0.45$

