# Reasoning and Problem Solving
# Step 1: Add and Subtract Multiples of 100

## National Curriculum Objectives:

**Mathematics Year 3: (3C1) Add and subtract numbers mentally, including: a three-digit number and ones; a three-digit number and tens; a three digit number and hundreds**

## Differentiation:

**Questions 1, 4 and 7 (Problem Solving)**
**Developing Find the possible calculations using multiples of 100 up to 1,000. Use of concrete manipulatives only; questions represented using Base 10.**
**Expected Find the possible calculations using multiples of 100 up to 1,000. Using a variety of manipulatives. Numbers presented as numerals and some words.**
**Greater Depth Find the possible calculations using multiples of 100 up to 1,000. No images given for support. Numbers presented as numerals or words.**

**Questions 2, 5 and 8 (Problem Solving)**
**Developing Find all the possible values of A + B within a number sentence, when adding and subtracting multiples of 100 up to 1,000. Use of concrete manipulatives only; questions represented using Base 10.**
**Expected Find all the possible values of A + B within a number sentence, when adding and subtracting multiples of 100 up to 1,000. Using a variety of manipulatives. Numbers presented as numerals and some words.**
**Greater Depth Find all the possible values of A, B + C within a number sentence, when adding and subtracting multiples of 100 up to 1,000. No images given for support. Numbers presented as numerals or words.**

**Questions 3, 6 and 9 (Reasoning)**
**Developing Explain who is correct using knowledge of adding and subtracting multiples of 100 up to 1,000. Use of concrete manipulatives only; questions represented using Base 10.**
**Expected Explain who is correct using knowledge of adding and subtracting multiples of 100 up to 1,000. Using a variety of manipulatives. Numbers presented as numerals and some words.**
**Greater Depth Explain who is correct using knowledge of adding and subtracting multiples of 100 up to 1,000. No images given for support. Numbers presented as numerals or words.**

**More Year 2 and Year 3 Addition and Subtraction resources.**

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

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# Add and Subtract Multiples of 100

1a. Use these cards to find all of the possible addition equations that will equal 1,000 or less.

D

3 PS

# Add and Subtract Multiples of 100

1b. Use these cards to find all of the possible subtraction equations that will equal 100 or more.

D

3 PS

2a. Find all of the possible values for A and B, where A and B are multiples of 100.

D

3 PS

2b. Find all of the possible values for A and B, where A and B are multiples of 100.

D

3 PS

3a. Kira and Cristal are adding multiples of 100.

Kira

The missing number is 200.

The missing number is 800.

Cristal

Who is correct? Explain how you know.

D

3 R

3b. Hugh and Cole subtracting multiples of 100.

Hugh

The missing number is 800.

The missing number is 400.

Cole

Who is correct? Explain how you know.

D

3 R

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# Add and Subtract Multiples of 100

**4a. Use these cards to find all of the possible addition equations that will equal 1,000 or less.**

E

3 PS

**5a. Find all of the possible values for A and B, where A and B are multiples of 100.**

E

3 PS

**6a. Sarah and Jane are subtracting multiples of 100.**

**Who is correct? Explain how you know.**

E

3 R

# Add and Subtract Multiples of 100

**4b. Use these cards to find all of the possible subtraction equations that will equal 100 or more.**

E

3 PS

**5b. Find all of the possible values for A and B, where A and B are multiples of 100.**

E

3 PS

**6b. Peter and Enzo are adding multiples of 100.**

**Who is correct? Explain how you know.**

E

3 R

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## Add and Subtract Multiples of 100

7a. Use these cards to find all of the possible subtraction equations that will equal 100 or more.

| | | |
|---|---|---|
| 900 | 500 | seven hundreds |
| 100 | two hundreds | 200 |

GD 3 PS

## Add and Subtract Multiples of 100

7b. Use these cards to find all of the possible addition equations that will equal 1,000 or less.

| | | |
|---|---|---|
| two hundreds | 600 | one thousand |
| 200 | one hundred | 400 |

GD 3 PS

8a. Find all of the possible values for A, B and C, where A, B and C are multiples of 100.

$$100 + A - B + C = 300$$

GD 3 PS

8b. Find all of the possible values for A, B and C, where A, B and C are multiples of 100.

$$300 + A - B - C = 600$$

GD 3 PS

9a. Ashley and Kendal are adding multiples of 100.

1,000 = ? + 600

Ashley: The missing number is three hundreds.

Kendal: The missing number is four hundreds.

Who is correct? Explain how you know.

GD 3 R

9b. Alan and Emmet are subtracting multiples of 100.

nine hundreds = one thousand – ?

Alan: The missing number is 100.

Emmet: The missing number is 200.

Who is correct? Explain how you know.

GD 3 R

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# Reasoning and Problem Solving
# Add and Subtract Multiples of 100

## Developing

1a. Various answers, for example: 100 + 200 = 300; 200 + 100 = 300; 300 = 100 + 200; 100 + 300 = 400

2a. A = 100, B = 300; A = 200, B = 200; A = 300, B = 100

3a. Kira is correct because 200 + 300 = 500

## Expected

4a. Various answers, for example: 500 + 300 = 800, 800 = 500 + 300, 100 + 200 = 300, 200 + 100 = 300, 100 + 300 = 400, 800 = 100 + 300 + 400

5a. A = 400, B = 100; A = 500, B = 200; A = 600, B = 300; A = 700, B = 400

6a. Jane is correct because 700 – 100 = 600

## Greater Depth

7a. Various answers, for example: 900 – 700 = 200; 500 – 200 – 100 = 200; 200 = 900 – 200 – 500; 700 – 200 = 500

8a. Various answers, for example: A = 900, B = 1,000, C = 300; A = 900, B = 900, C = 200; A = 900, B = 800, C = 100; A = 800, B = 900, C = 300

9a. Kendal is correct because 600 + 400 = 1,000


# Reasoning and Problem Solving
# Add and Subtract Multiples of 100


## Developing

1b. Various answers, for example: 500 – 100 = 400; 500 – 400 = 100; 100 = 500 – 400; 600 – 100 = 500

2b. A = 100, B = 500; A = 200, B = 400; A = 300, B = 300; A = 400, B = 200; A = 500, B = 100

3b. Cole is correct because 600 – 400 = 200

## Expected

4b. Various answers, for example: 700 – 400 = 300, 700 – 500 = 200, 400 = 700 – 300, 100 = 700 – 400 – 200, 500 – 400 = 300

5b. A = 900, B = 400; A = 800, B = 300; A = 700, B = 200; A = 600, B = 100

6b. Peter is correct because 500 + 300 = 800

## Greater Depth

7b. Various answers, for example: 600 + 400 = 1,000; 400 = 200 + 200; 200 + 200 = 400; 1,000 = 200 + 200 + 600

8b. Various answers; for example: A = 700, B = 100, C = 300; A = 700, B = 200, C = 200; A = 700, B = 300, C = 100; A = 600, B = 100, C = 200

9b. Alan is correct because 1,000 – 100 = 900


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