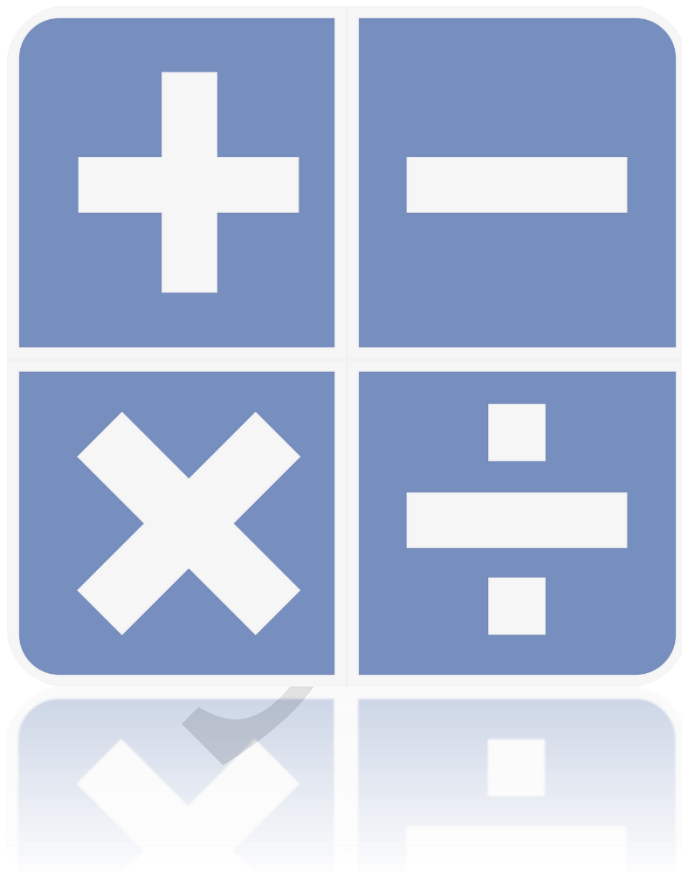


Additions & Subtractions Up to 10 000

Focus on
Problem
Solving
(P3)



Holiday Programme
(Dec 2025)

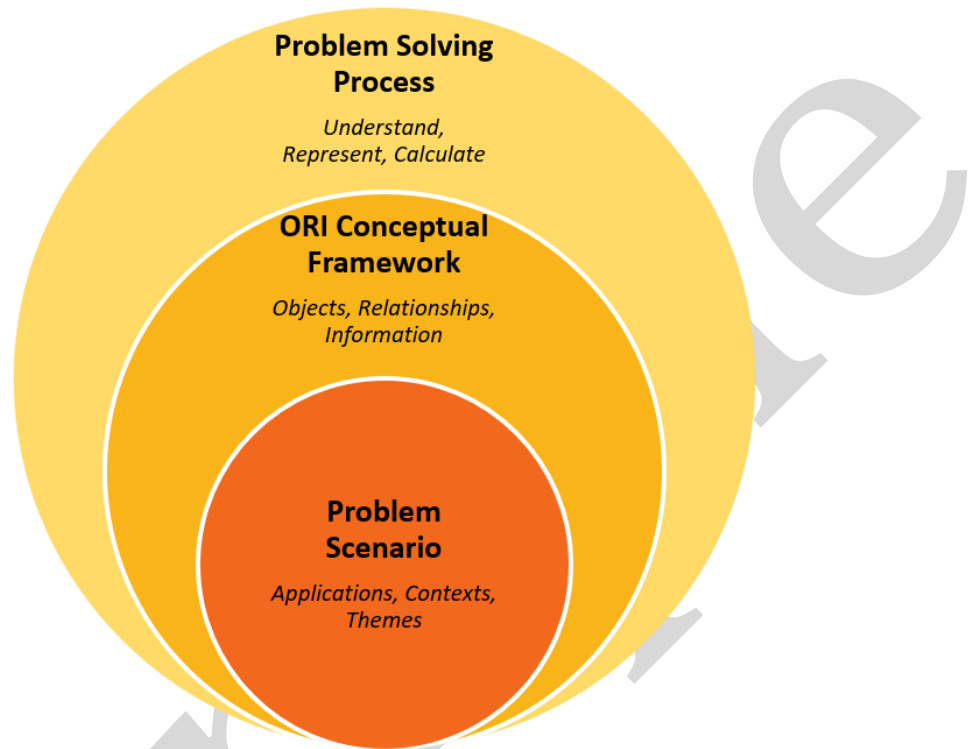
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Relational Concepts Approach (RCA)

The Relational Concepts Approach (RCA) is a structured way of solving mathematical word problems.

It encourages learners to first **understand the underlying relationships** and present them in **clear and concise representations** before carrying out any computations.



Our proprietary **ORI Conceptual Framework** forms the core of the approach.

It guides learners to systematically break down a word problem to identify the mathematical **objects** involved, their **relationships** and the **information** provided.

Additions & Subtractions with Renaming

1 Math Essentials

1.1 Additions with Renaming

Let's Learn

Addition with Renaming

Find the sum of 1693 and 6379 .



	Thousands	Hundreds	Tens	Ones
1693	1	6	9	3
6379	6	3	7	9
Sum	8	0	7	2

Add from right to left.

Step 1
Add the ones.
 $3 \text{ ones} + 9 \text{ ones} = 12 \text{ ones}$
Regroup the ones.
 $12 \text{ ones} = 1 \text{ ten } 2 \text{ one}$

Step 2
Add the tens.
 $9 \text{ tens} + 7 \text{ tens} + 1 \text{ tens} = 17 \text{ tens}$
Regroup the tens.
 $17 \text{ tens} = 1 \text{ hundreds } 7 \text{ tens}$

Step 3
Add the hundreds.
 $6 \text{ hundreds} + 3 \text{ hundreds} + 1 \text{ hundred} = 10 \text{ hundreds}$
Regroup the hundreds.
 $10 \text{ hundreds} = 1 \text{ thousand } 0 \text{ hundred}$

Step 4
Add the thousands.
 $1 \text{ thousand} + 6 \text{ thousands} + 1 \text{ thousand} = 8 \text{ thousands}$

The sum of 1693 and 6379 is 8072.

1.2 Subtractions with Renaming

Let's Learn

Subtraction with Renaming

Find the difference between 9372 and 1683.



The diagram shows a subtraction problem using place value blocks. The top row represents 9372: 8 thousands (orange), 3 hundreds (blue), 7 tens (purple), and 2 ones (green). The bottom row represents 1683: 1 thousand (orange), 6 hundreds (blue), 8 tens (purple), and 3 ones (green). A yellow arrow points from right to left, indicating the direction of subtraction. A hand holding a yellow pencil is shown on the right.

Subtract from right to left.

Step 1
Regroup the tens and ones.
1 ten 2 ones = 12 ones
Subtract the ones.
12 ones - 3 ones = 9 ones

Step 2
Regroup the hundreds and tens.
1 hundred 6 ten = 16 tens
Subtract the tens.
16 tens - 8 tens = 8 tens

Step 3
Regroup the thousands and hundreds.
1 thousand 2 hundreds = 12 hundreds
Subtract the hundreds.
12 hundreds - 6 hundreds = 6 hundreds

Step 4
Subtract the thousands.
8 thousands - 1 thousand = 7 thousands

The difference between 9372 and 1683 is 7689.

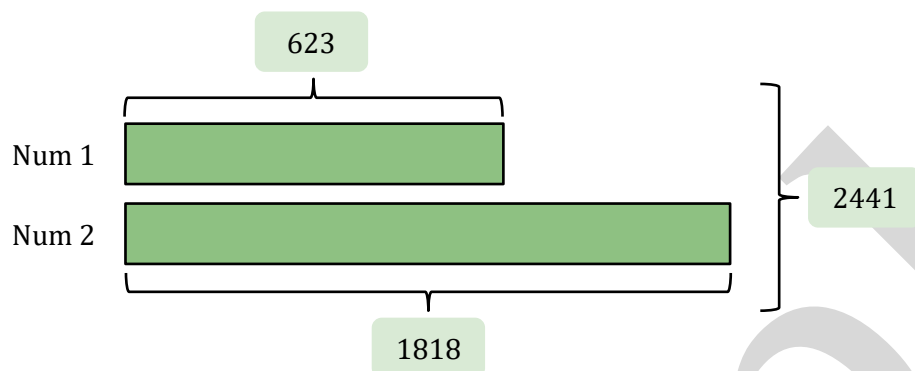
2 Problem Solving: Sum & Difference

Let's Relate

The sum of two numbers is 2441.

The first number is 623.

The second number is 1818.



The ORI Table

Type of Objects:	Items (Numbers)/ with Values/ with Measurements
Parts of Objects:	No Parts/ Unequal Parts/ Equal Parts/ with Subparts
Comparison:	Yes/ No
Changes:	Yes/ No

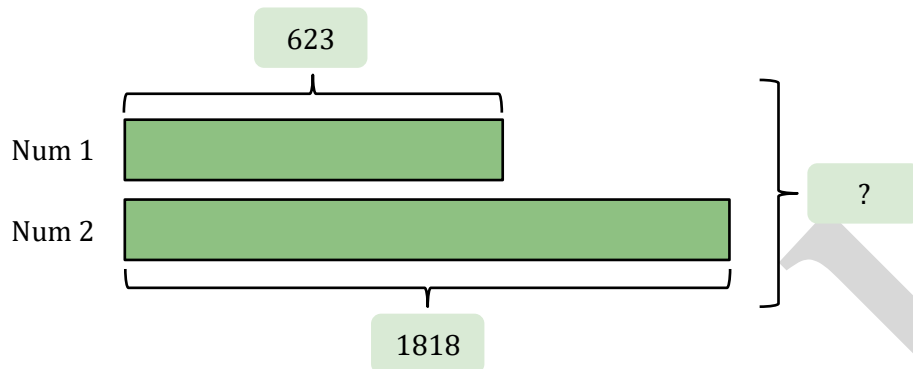
Type of Questions

Type	Question	Information Given/ Implied		
		Num #1	Num #2	Total
1	What is the sum of 623 and 1818?	✓	✓	
2	The sum of two numbers is 2441. One of the numbers is 623. What is the other number?	✓		✓

2.1 Type 1 Questions

Let's Learn

- 1 What is the sum of 623 and 1818?

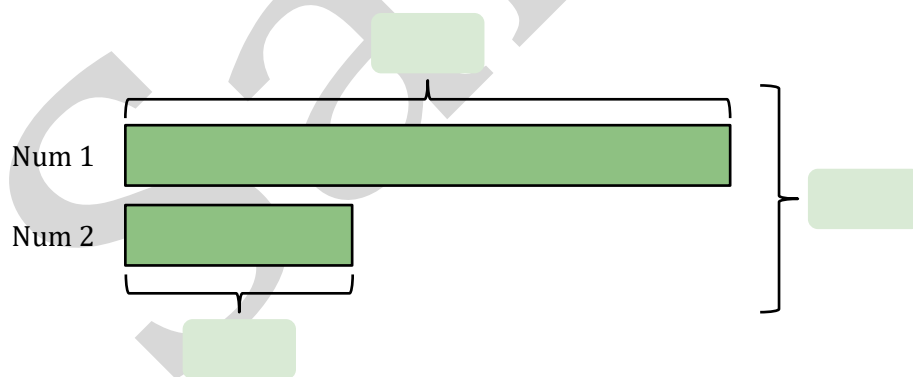


$$623 + 1818 = 2441$$

The sum is 2441 .

Practice 2.1

- 1 What is the sum of 6548 and 65?



$$\square + \square = \square$$

The sum is .

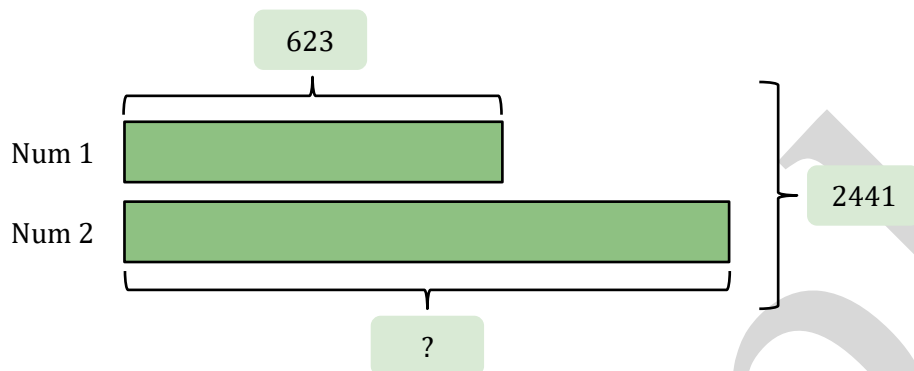
2 What is the sum of 789 and 4823?

3 What is the sum of 1890 and 7368?

2.2 Type 2 Questions

Let's Learn

- 1 The sum of two numbers is 2441.
One of the numbers is 623.
What is the other number?

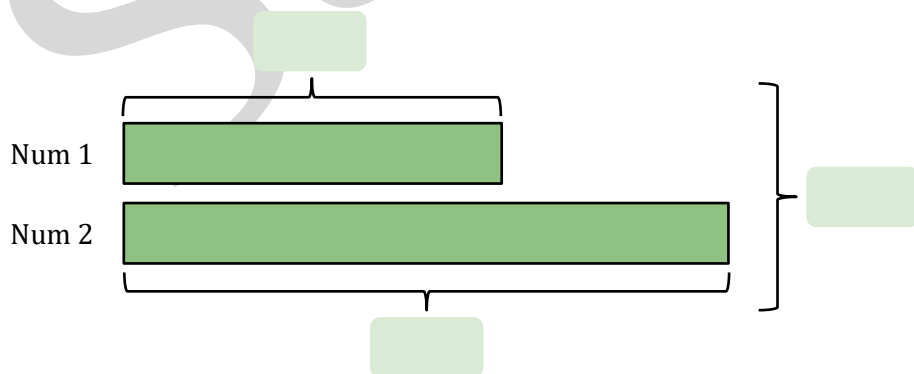


$$2441 - 623 = 1818$$

The other number is 1818.

Practice 2.2

- 1 The sum of two numbers is 254.
One of the numbers is 96.
What is the other number?



$$\text{[Green Box]} - \text{[Green Box]} = \text{[Green Box]}$$

The other number is [Green Box].

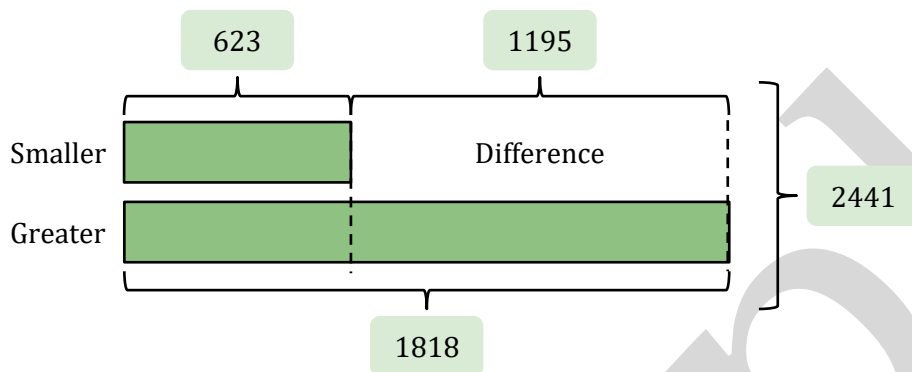
- 2 The sum of two numbers is 7102.
One of the numbers is 619.
What is the other number?

- 3 The sum of two numbers is 3250.
One of the numbers is 2164.
What is the other number?

3 Problem Solving: Sum & Difference with Comparison

Let's Relate

- 1 The sum of 2 numbers is 2441.
The smaller number is 623.
The greater number is 1818.
The difference between the 2 numbers is 1195.



The ORI Table

Type of Objects:	Items (Numbers)/ with Values/ with Length/ with Mass/ with Volumes
Parts of Objects:	No Parts/ Unequal Parts/ Equal Parts/ with Subparts/ with Excess
Comparison:	Yes/ No
Changes:	Yes/ No

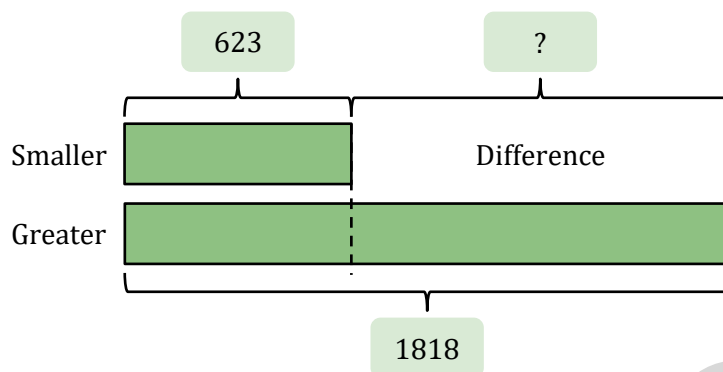
Type of Questions

Type	Question	Information Given/ Implied			
		Smaller	Greater	Total	Diff
1	2 numbers are such that one is 623 and the other is 1818. What is the difference between the 2 numbers?	✓	✓		
2	The difference between 2 numbers is 1195. The smaller number is 623. What is the sum of the 2 numbers?	✓			✓
3	The difference between 2 numbers is 1195. The greater number is 1818. What is the sum of the 2 numbers?		✓		✓
4	The sum of two numbers is 2441. One of the numbers is 623. What is the difference between the 2 numbers?	Either One		✓	

3.1 Type 1 Questions

Let's Learn

- 1 2 numbers are such that one is 623 and the other is 1818.
What is the difference between the 2 numbers?

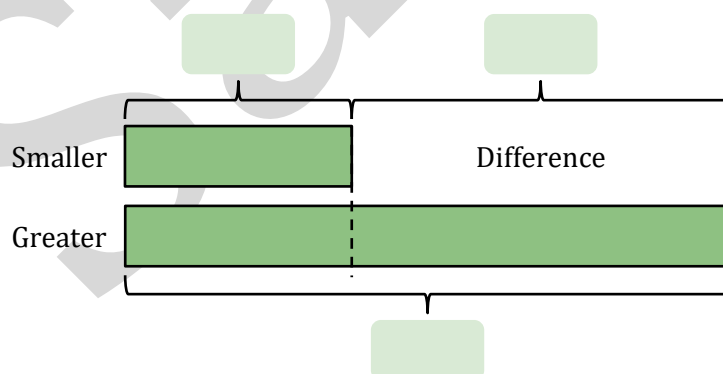


$$1818 - 623 = 1195$$

The difference between the 2 numbers is 1195 .

Practice 3.1

- 1 2 numbers are such that one is 67 and the other is 4965.
What is the difference between the 2 numbers?



$$\text{ } - \text{ } = \text{ }$$

The difference between the 2 numbers is .

- 2 2 numbers are such that one is 784 and the other is 3739.

What is the difference between the 2 numbers?

- 3 2 numbers are such that one is 3625 and the other is 4375.

What is the difference between the 2 numbers?

3.2 Type 2 Questions

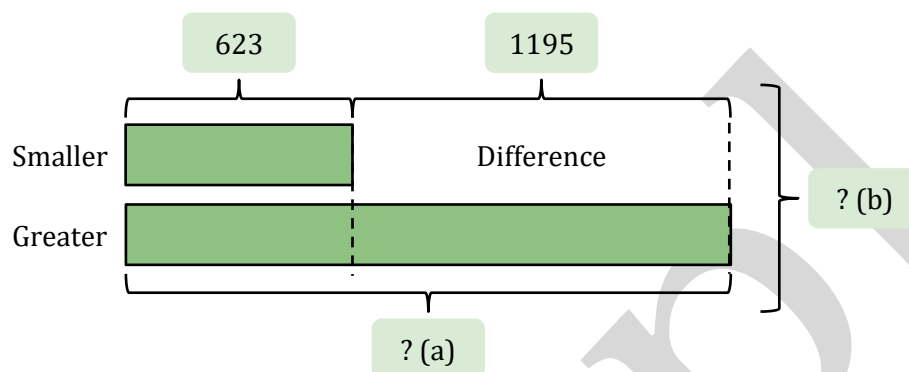
Let's Learn

1 The difference between 2 numbers is 1195.

The smaller number is 623.

(a) What is the greater number?

(b) What is the sum of the 2 numbers?



(a) $623 + 1195 = 1818$

The greater number is 1818 .

(b) $623 + 1818 = 2441$

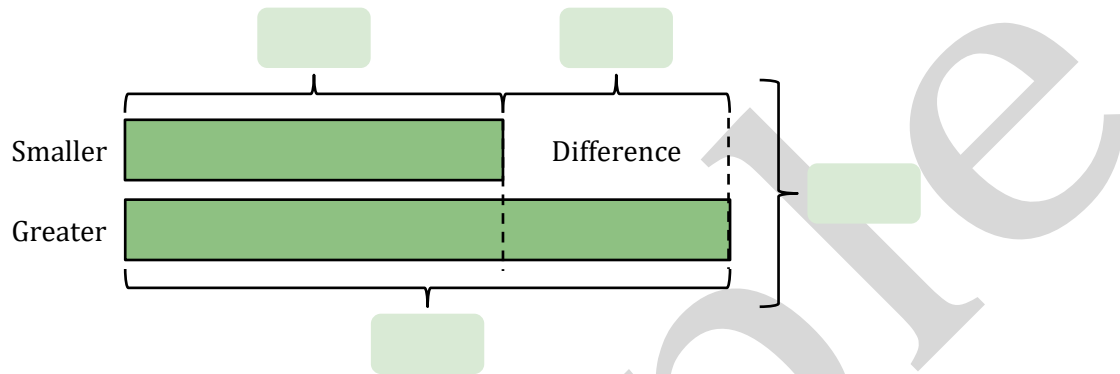
The sum of the 2 numbers is 2441 .

Practice 3.2

- 1 The difference between 2 numbers is 57.

The smaller number is 146.

- (a) What is the greater number?
(b) What is the sum of the 2 numbers?



(a) $\square \div \square = \square$

The greater number is $\square$.

(b) $\square + \square = \square$

The sum of the 2 numbers is $\square$.

- 2 The difference between 2 numbers is 198.
The smaller number is 2845.
What is the sum of the 2 numbers?

- 3 The difference between 2 numbers is 1894.
The smaller number is 7368.
What is the sum of the 2 numbers?

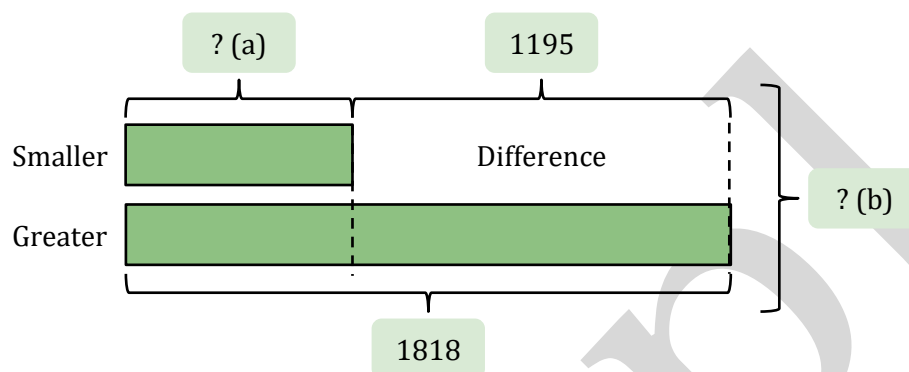
3.3 Type 3 Questions

Let's Learn

- 1 The difference between 2 numbers is 1195.

The greater number is 1818.

- (a) What is the smaller number?
(b) What is the sum of the 2 numbers?



(a) $1818 - 1195 = 623$

The smaller number is 623 .

(b) $623 + 1818 = 2441$

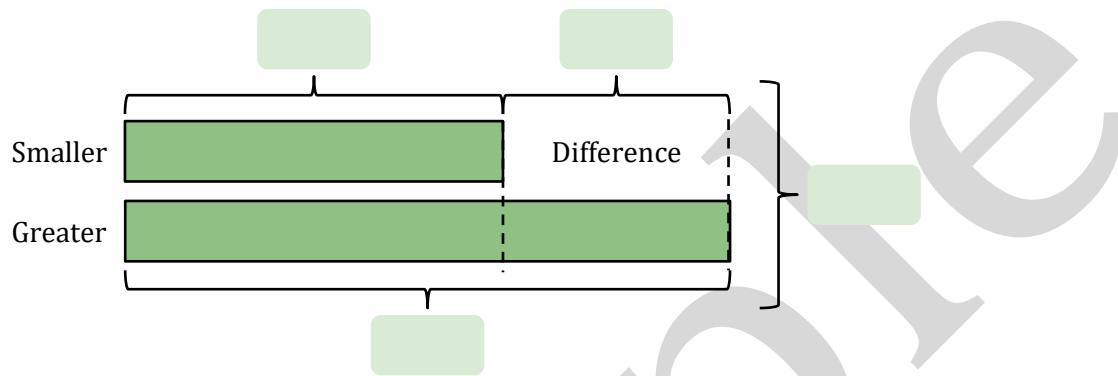
The sum of the 2 numbers is 2441 .

Practice 3.3

- 1 The difference between 2 numbers is 96.

The greater number is 723.

- (a) What is the smaller number?
(b) What is the sum of the 2 numbers?



(a) $\boxed{} \ominus \boxed{} = \boxed{}$

The smaller number is $\boxed{}$.

(b) $\boxed{} \oplus \boxed{} = \boxed{}$

The sum of the 2 numbers is $\boxed{}$.

- 2 The difference between 2 numbers is 398.
The greater number is 6235.
What is the sum of the 2 numbers?

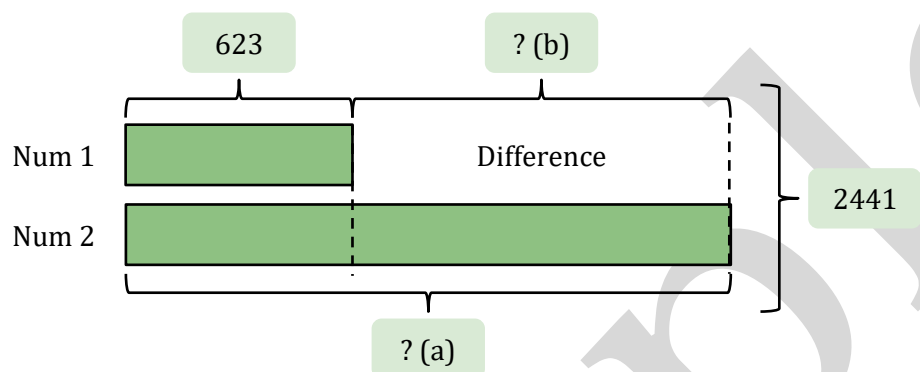
- 3 The difference between 2 numbers is 1725.
The greater number is 7412.
What is the sum of the 2 numbers?

3.4 Type 4 Questions

Let's Learn

- 1 The sum of two numbers is 2441.
One of the numbers is 623.

- (a) What is the other number?
(b) What is the difference between the 2 numbers?



(a) $2441 - 623 = 1818$

The other number is 1818 .

(b) $1818 - 623 = 1195$

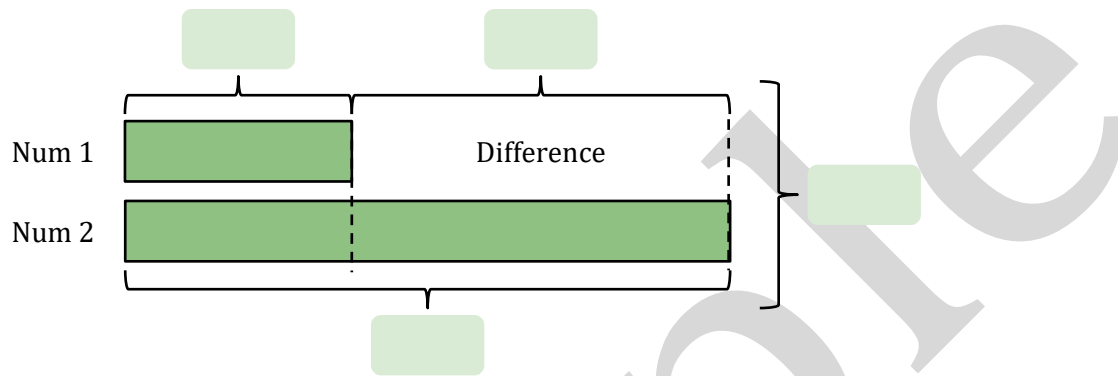
The difference between the 2 numbers is 1195 .

Practice 3.4

1 The sum of two numbers is 2371.

One of the numbers is 99.

- (a) What is the other number?
(b) What is the difference between the 2 numbers?



(a) $\square \circ \square = \square$

The other number is $\square$.

(b) $\square - \square = \square$

The difference between the 2 numbers is $\square$.

- 2 The sum of two numbers is 7128.
 One of the numbers is 789.
 What is the difference between the 2 numbers?

- 3 The sum of two numbers is 6245.
 One of the numbers is 3409.
 What is the difference between the 2 numbers?