

MULTI
MATHS

The title 'MULTI MATHS' is rendered in large, bold, 3D block letters. Several cartoon children are interacting with the letters: a boy sits on the 'M', a girl stands on the 'S', and others are positioned around the letters holding various school supplies like books, a pen, and a ruler.

Workbook

3

Linawati Lauw




Ultimaths - Workbook 3

Published by:

PT ASTA ILMU SUKSES (member of Mentari Group)

RUKAN Sentra Niaga Puri Indah Block T1-14

West Jakarta 11610

 : 0856 9785 6420

 : @astailmusukses

 : contact@astailmu.com


 : www.astailmu.id


First published: January 2023


© 2023 **PT ASTA ILMU SUKSES** (member of Mentari Group)

All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, or stored in any retrieval system of any nature without the prior written permission of **PT ASTA ILMU SUKSES**.

Preface

 is a mathematics learning series for primary school students. The contents are systematically arranged according to the ability of the child, which can be applied in everyday life, and can be used as preparation for the next level.

 uses an international standard of mathematical teaching and learning approaches, which have been proven to bring children success in learning mathematics. The Concrete-Pictorial-Abstract approach introduces new concepts with the use of appropriate manipulatives, before moving to pictorials and abstract representations. The development of topics across the levels in spiral progression approach helps learners acquire a new concept by building on previously learned concepts. The focus on Problem Solving by promoting the use of bar models, empowers students to develop visualization skills to better understand word problems before solving them.

 provides active, fun, and collaborative mathematics learning with lots of activities and games. These learning experiences will enable students to acquire and apply concepts and skills, develop critical thinking skills, and positive attitudes towards mathematics.

Using This Book

Ultimaths has some special features to help students learn and use this book.

Exercise

Independent practices to strengthen and consolidate the concepts learned in Textbook.



Unit 1 Numbers to 10 000

Exercise 1 Counting to 10 000

1 Count and write in numbers.

a

1000	1000	1000	1000	100	100	100	10	10	10	10	10	10	1	1	1	1
1000							10	10	10	10	10	10	1	1	1	1

b

1000	100	100	100	100	10	10	10	10	10	10	10	10	1	1	1	1

c

1000	1000	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

d

1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000

2 Unit 1 Numbers to 10 000

Something More Exciting!

More challenging practice to stimulate higher order thinking.



Something More Exciting!

Megan is using the following method to find the sum of 2347 and 1895.

$$\begin{array}{r} 2347 \\ 1895 \\ + \\ \hline 3000 \\ 1100 \\ 130 \\ + \\ \hline 4242 \end{array}$$

Use Megan's method to solve these problems.

a $4638 + 2894 =$ b $5294 + 3876 =$

$$\begin{array}{r} 4638 \\ 2894 \\ + \\ \hline \\ \hline \\ \hline \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 5294 \\ 3876 \\ + \\ \hline \\ \hline \\ \hline \\ \hline \\ \hline \end{array}$$

What do you think of Megan's method? Is it easier or more difficult? Why?

What Do You Remember?

A 4-digit number is a number that consists of 4 digits. For example, 5290, 3100, 7000, etc.

- 1 What is the smallest possible 4-digit number?
- 2 What is the greatest possible 4-digit number?

Something More Exciting!

George is thinking about a 4-digit number.

Thousands	Hundreds	Tens	Ones

The digit in the ones place is the greatest.
The digit in the hundreds place is 1 more than the digit in the tens place.
The value of the digit in the thousands place is 6000.
The sum of the four digits is 18.

What number is George thinking about?

What Do You Remember?

This feature is for reflection of what have been learnt.



Contents



Counting to 10 000

2

Exercise 1	Numbers to 10 000	2
Exercise 2	Using Place Value to Show Numbers	4
Exercise 3	Using 1000 100 10 1 to Compare Numbers	6
Exercise 4	Using Place Value Chart to Compare Numbers	7
Exercise 5	Using Number Lines to Compare Numbers	8
Exercise 6	Ordering Numbers	9
Exercise 7	Number Patterns	10
Exercise 8	Finding the Number Patterns	11
	What Do You Remember?	12
	Something More Exciting!	12



Addition and Subtraction Within 10 000

13

Exercise 1	Addition without Regrouping	13
Exercise 2	Addition with Regrouping in Ones	15
Exercise 3	Addition with Regrouping in One and Tens	16
Exercise 4	Addition with Regrouping in Ones, Tens, and Hundreds	18
Exercise 5	Subtraction without Regrouping	20
Exercise 6	Subtraction with Regrouping in Ones and Tens	22
Exercise 7	Subtraction with Regrouping in Ones, Tens, and Hundreds...	23
Exercise 8	Subtraction with Regrouping in Ones, Tens, Hundreds, and Thousands	25
Exercise 9	Subtract from the Thousands	27
	What Do You Remember?	28
	Something More Exciting!	29



Solving Word Problems: Addition and Subtraction

30

Exercise 1	Solving Word Problems (1)	30
Exercise 2	Solving Word Problems (2)	32
Exercise 3	Solving Word Problems (3)	34
Exercise 4	Solving Word Problems (4)	36
Exercise 5	Solving Word Problems (5)	38
	What Do You Remember?	40
	Something More Exciting!	41



Multiplication and Division Facts of 6, 7, 8, and 9

42

Exercise 1	Multiplication and Division Facts of 6	42
Exercise 2	Multiplication and Division Facts of 7	45
Exercise 3	Multiplication and Division Facts of 8	48
Exercise 4	Multiplication and Division Facts of 9	51
	What Do You Remember?	54
	Something More Exciting!	55

Unit 5

Multiplication and Division Word Problems

56


Exercise 1 Using Bar Model to Solve Multiplication Word Problems (1).... 56


Exercise 2 Using Bar Model to Solve Multiplication Word Problems (2)... 57

Exercise 3 Using Bar Model to Solve Division Word Problems (1) 58

Exercise 4 Using Bar Model to Solve Division Word Problems (2) 59

Exercise 5 Using Bar Model to Solve Division Word Problems (3) 60

 **What Do You Remember?** 61

 **Something More Exciting!** 62

Unit 6

Multiplication


63


Exercise 1 How to Multiply 63

Exercise 2 Multiplying Two Numbers 64

Exercise 3 Multiplication with Regrouping in Ones and Tens 67

Exercise 4 Multiplication with Regrouping in Ones, Tens, Hundreds, and Thousands 70

 **What Do You Remember?** 73

 **Something More Exciting!** 74

Unit 7

Division with Big Numbers

75


Exercise 1 Dividing Ones, Tens, and Hundreds 75


Exercise 2 Division without Regrouping 76

Exercise 3 Quotient and Remainder 79

Exercise 4 Division with Regrouping in Tens 81

Exercise 5 Division with Regrouping in Hundreds and Tens 84

 **What Do You Remember?** 87

 **Something More Exciting!** 87

Unit 8

Fractions

88

Exercise 1 Equal Parts 88

Exercise 2 Using Fraction to Show Part of a Whole 90

Exercise 3 Equal Parts of a Whole 93

Exercise 4 Fractions on a Number Line 94


Exercise 5 Comparing Fractions with the Same Denominators 95


Exercise 6 Comparing Fractions with the Same Numerators 96

Exercise 7 Ordering Fractions 97

Exercise 8 Adding Fractions with the Same Denominators 99

Exercise 9 Subtracting Fractions with the Same Denominators 101

 **What Do You Remember?** 103

 **Something More Exciting!** 104

Unit 9

Time

105

Exercise 1 Tell the Time 105


Exercise 2 Time Unit Conversions (1) 107


Exercise 3 Time Unit Conversions (2) 109

Exercise 4 Time and Duration 112

Exercise 5 Finding the Finishing Time 114

Exercise 6 Finding the Starting Time 116



 **What Do You Remember?** 118

 **Something More Exciting!** 119

**Unit
10**

Length and Mass

120

Exercise 1 Length Units (1) 120
Exercise 2 Length Units (2) 123
Exercise 3 Reading Scales: Mass (1)..... 126
Exercise 4 Reading Scales: Mass (2)..... 127
Exercise 5 Mass Unit Conversions 128
Exercise 6 Word Problems: Length (1)..... 131
Exercise 7 Word Problems: Length (2) 133
Exercise 8 Word Problems: Mass (1) 136
Exercise 9 Word Problems: Mass (2) 138
 What Do You Remember? 140
 Something More Exciting! 141

**Unit
11**

Angles and Two-Dimensional Shapes



142

Exercise 1 Describe and Compare Angles 142
Exercise 2 Two-Dimensional Shapes 145
 What Do You Remember? 147
 Something More Exciting! 148

**Unit
12**

Symmetry



149

Exercise 1 Symmetric and Non-Symmetric Figures..... 149
Exercise 2 Line of Symmetry 151
 What Do You Remember? 153
 Something More Exciting! 154

**Unit
13**

Area and Perimeter



155

Exercise 1 Area of Two-Dimensional Figures..... 155
Exercise 2 Square Centimetres (cm²) and Square Metres (m²) 157
Exercise 3 Area of A Rectangle and A Square..... 159
Exercise 4 Perimeter of A Two-Dimensional Figure..... 162
Exercise 5 Perimeter of A Square and A Rectangle 163
 What Do You Remember? 166
 Something More Exciting! 166

**Unit
14**

Picture Graphs

167

Exercise 1 Reading the Picture Graphs (1)..... 167
Exercise 2 Reading the Picture Graphs (2) 169
 What Do You Remember? 172
 Something More Exciting! 173

Exercise 1 Counting to 10 000

1 Count and write in numbers.

a

1000 1000 1000 1000 1000	100 100 100	10 10 10 10 10 10 10 10 10	1 1 1 1 1 1 1
-----------------------------	-------------	----------------------------------	------------------

b

1000	100 100 100 100	10 10 10 10 10 10 10	
------	-----------------	-------------------------	--

c

1000 1000	100 100 100 100 100 100		1 1 1 1 1
-----------	----------------------------	--	--------------

d

1000 1000 1000 1000 1000 1000 1000 1000			1 1
--	--	--	-----

2 Write in words.

- a 5782
- b 7903
- c 4026
- d 6009

3 Write in numbers.

- a nine thousand, one hundred and seventeen
- b one thousand, nine hundred and eighty-three
- c seven thousand, nine hundred and fifty-one
- d three thousand and eight

Exercise 2 Using Place Value to Show Numbers

1 Find the missing numbers.

1000 1000 1000 1000 1000 1000	100 100 100 100 100	10 10 10 10 10 10 10 10	1 1
----------------------------------	------------------------	----------------------------	-----

Thousands	Hundreds	Tens	Ones

- a The digit 6 is in the place.
 The digit 5 is in the place.
 The digit 8 is in the place.
 The digit 2 is in the place.
- b The value of the digit 6 is .
- The value of the digit 5 is .
- The value of the digit 8 is .
- The value of the digit 2 is .

2 Show 4631 using the place value chart.

Thousands	Hundreds	Tens	Ones

- a The digit is in the thousands place.
 The digit is in the hundreds place.
 The digit is in the tens place.
 The digit is in the ones place.
- b The value of the digit 4 is .
- The value of the digit 6 is .
- The value of the digit 3 is .
- The value of the digit 1 is .

3 Write the missing numbers.

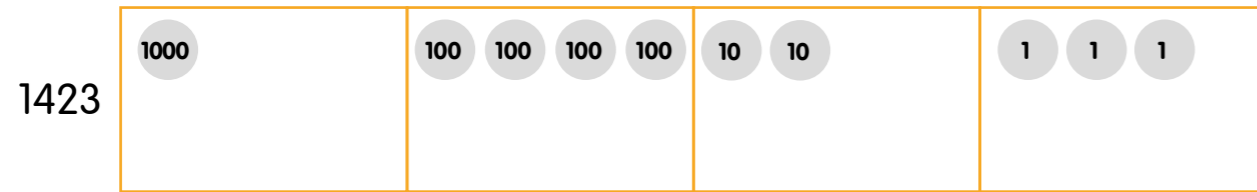
- a $3458 = 3000 + \text{ } + 50 + 8$ b $9004 = \text{ } + 4$
- c $5374 = 5000 + 300 + \text{ } + 4$ d $8143 = \text{ } + 100 + 40 + 3$

4 State the value of the digit 5 in each number.

- a 6**5**93
- b **5**207
- c 8**4**56
- d 28**9**5

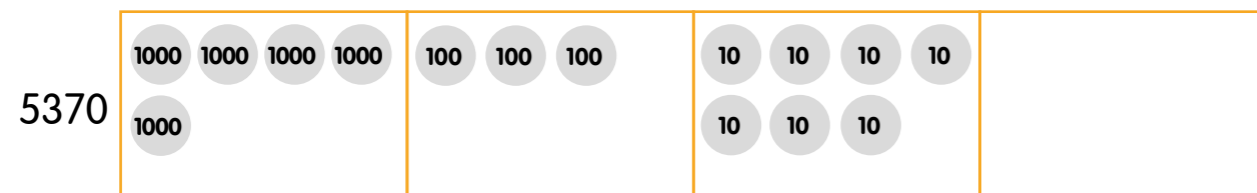
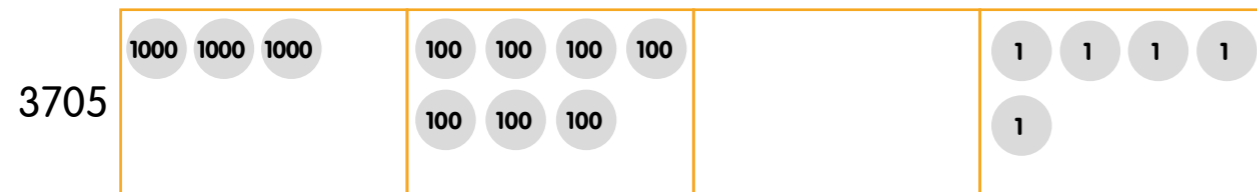
Exercise 3 Using 1000 100 10 1 to Compare Numbers

1 Which is greater, 1423 or 2034?



is greater than .

2 Which is smaller, 3705 or 5370?



is smaller than .

3 Fill in with < or >.

a 8138 7998

b 4999 5000

Exercise 4 Using Place Value Chart to Compare Numbers

1 Compare the numbers in the place value chart.

a

Thousands	Hundreds	Tens	Ones
9	9	7	5
9	0	3	6

is greater than .

b

Thousands	Hundreds	Tens	Ones
7	4	3	0
7	4	6	3

is smaller than .

2 Compare the numbers in the place value chart. Fill in with < or >.

a 5613 and 5884

Thousands	Hundreds	Tens	Ones
5	6	1	3
5	8	8	4

5613 5884

b 4790 and 4750

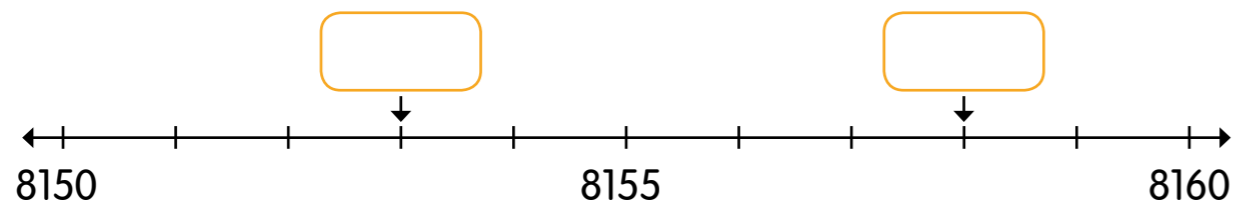
Thousands	Hundreds	Tens	Ones
4	7	9	0
4	7	5	0

4790 4750

Exercise 5 Using Number Lines to Compare Numbers

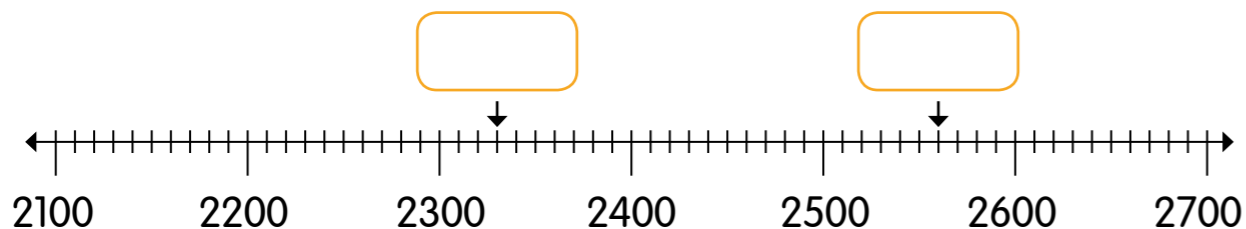
Use number lines to compare the following numbers.

- 1 Which number is greater, 8158 or 8153?



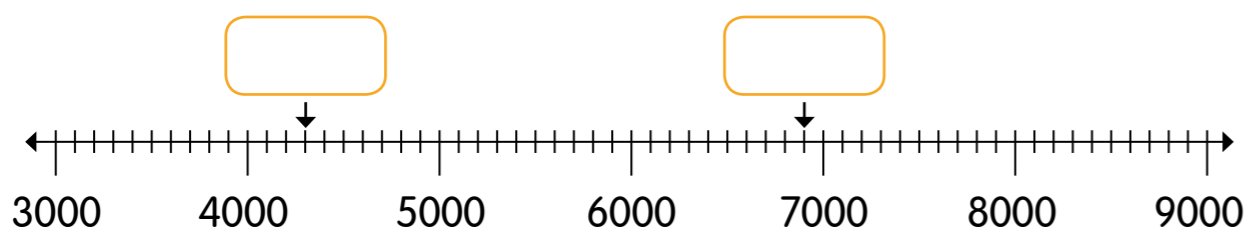
is greater than .

- 2 Which number is smaller, 2330 or 2560?



is smaller than .

- 3 Which number is greater, 4300 or 6900?



is greater than .

Exercise 6 Ordering Numbers

- 1 Circle the greatest number in each set.

a 8761 7235 7293 3978

b 3468 3486 3864 3846

- 2 Circle the smallest number in each set.

a 2691 6847 5392 3416

b 1256 1265 1526 1562

- 3 Arrange the numbers in order, from the greatest to the smallest.

7084, 7784, 7048

, ,

- 4 Arrange the numbers in order, from the smallest to the greatest.

6935, 6918, 6198, 6398

, , ,

- 5 Form the greatest 4-digit number using these numbers.

a 6, 2, 9, 5

b 4, 0, 7, 1

Exercise 7 Number Patterns

1 Write the missing numbers.

- a 10 more than 3409 is .
- b 10 more than 9238 is .
- c 100 more than 6820 is .
- d 10 less than 2759 is .
- e 100 less than 5946 is .
- f 100 less than 7402 is .

2 Complete the number patterns.

- a 1010, 1020, 1030, , , 1060, 1070
- b 3471, 3461, , , 3431, 3421, 3411
- c 7630, 7730, , , 8030, 8130
- d , , 6218, 6318, 6418
- e , 2224, , 2424, 2524, 2624

Exercise 8 Finding the Number Patterns

1 Write the missing numbers.

- a 1000 more than 3557 is .
- b 1000 more than 3716 is .
- c 1000 more than 8904 is .
- d 1000 less than 2621 is .
- e 1000 less than 4579 is .
- f 1000 less than 5367 is .

2 Complete the number patterns.

- a 2851, 3851, 4851, ,
- b 8510, 7510, 6510, ,
- c 3126, 4226, 5326, ,
- d 9999, 8899, 7799, ,

What Do You Remember?

A 4-digit number is a number that consists of 4 digits.
For example, 5290, 3100, 7000, etc.

1 What is the smallest possible 4-digit number?

2 What is the greatest possible 4-digit number?

Something More Exciting!



George is thinking about a 4-digit number.

Thousands	Hundreds	Tens	Ones

The digit in the ones place is the greatest.

The digit in the hundreds place is 1 more than the digit in the tens place.

The value of the digit in the thousands place is 6000.

The sum of the four digits is 18.

What number is George thinking about?

Unit 2

Addition and Subtraction Within 10 000

Exercise 1

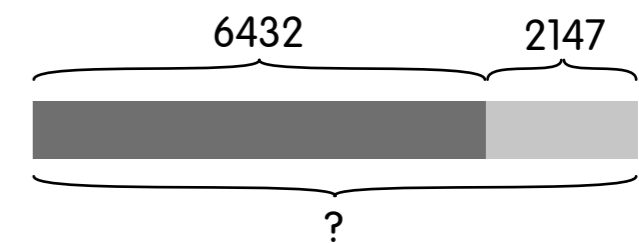
Addition without Regrouping

1 Find the sum of these numbers.

a 6432 and 2147.

$$6432 + 2147 = \text{$$

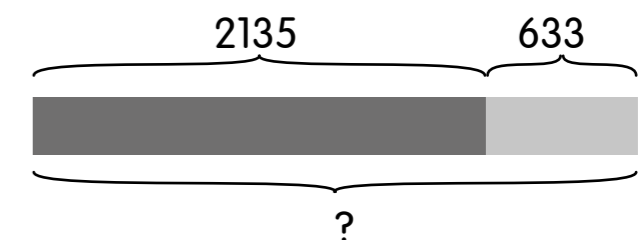
+			



b 2135 and 633.

$$2135 + 633 = \text{$$

+			



c 502 and 3214.

$$502 + 3214 = \text{$$

+			

