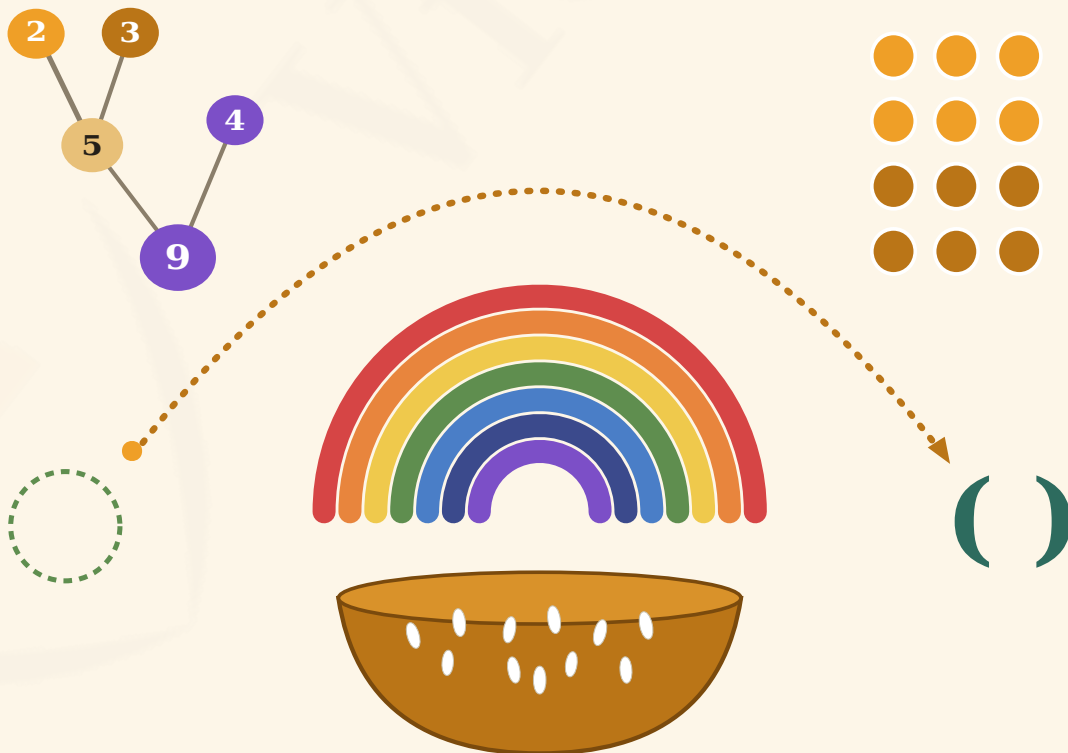


Math You Can See

Foundations — Book One



CHAPTERS ONE THROUGH FOURTEEN

MATH YOU CAN SEE · BOOK ONE



Math You Can See

Foundations · Book One

Copyright © 2026 by Viditra™

All rights reserved.

No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without prior written permission from the copyright holder, except for brief quotations used in critical reviews and certain other noncommercial uses permitted by copyright law.

First Edition

Illustrations & Design by Viditra™

www.viditra.com

This book is intended for educational use.

MATH YOU CAN SEE · BOOK ONE

Contents

Fourteen chapters · one visual language

01	The World is Built on Numbers <i>Why does mathematics exist?</i>	PAGE 1
02	Zero <i>Zero is where mathematics begins</i>	PAGE 13
03	The Number Line: Your Map <i>Every number has a home</i>	PAGE 18
04	Insects of Ten <i>0 to 100 · the ten-by-ten world</i>	PAGE 23
05	Number Neighbourhoods <i>Where any number lives</i>	PAGE 27
06	Addition: Combining <i>Two groups become one</i>	PAGE 31
07	Subtraction: Taking Away <i>Some are removed</i>	PAGE 38
08	Multiplication: Equal Groups <i>Rows of the same amount</i>	PAGE 43
09	Division: Sharing Equally <i>One group splits into equal groups</i>	PAGE 48
10	The Commutative Property <i>Swap the order · same answer</i>	PAGE 52
11	The Associative Property <i>Group them however you like</i>	PAGE 56
12	The Distributive Property <i>Split · multiply · add back</i>	PAGE 61
13	The Identity Properties <i>Zero and one · the mirrors</i>	PAGE 65
14	Who Goes First? <i>BODMAS · the order of operations</i>	PAGE 70

 FOUNDATIONS

 ZERO & PLACE

 SCALE

 OPERATIONS

 PROPERTIES

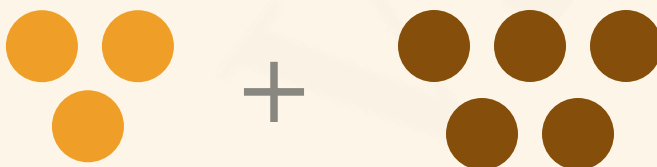
 ORDER

CHAPTER 6

Addition

Combining

Two groups become one



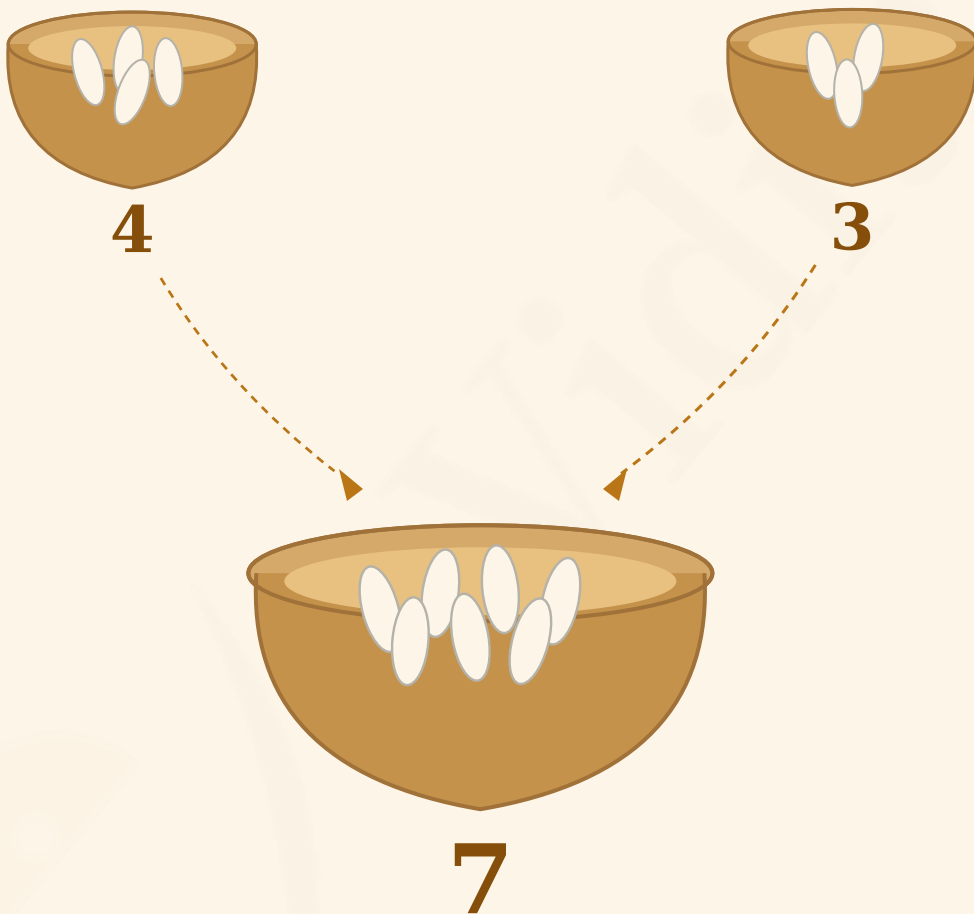
DOTS COMBINING · BARS JOINING · JUMPS FORWARD



METHODS TO VISUALIZE ADDITION

METHOD 1 · DOT COMBINING

TWO GROUPS BECOME ONE GROUP



$$4 + 3 = 7$$

METHOD 2 · BAR MODEL

TWO BARS JOIN INTO ONE LONGER BAR



FIRST BAR + SECOND BAR



7

SAME TOTAL LENGTH

$$4 + 3 = 7$$

THE BAR MODEL · LENGTH IS VALUE

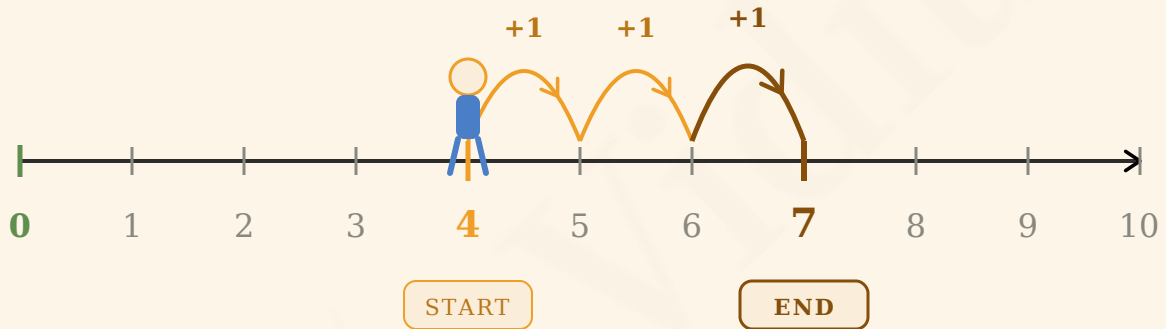


4 MANGOES + 3 MANGOES = 7 MANGOES — SAME RULE

METHOD 3 · NUMBER LINE JUMP

JUMP FORWARD ON THE NUMBER LINE

THREE JUMPS = +3



$$4 + 3 = 7$$

THREE WAYS · ONE ANSWER

 DOTS BARS JUMPS

SPLIT · STACK · COMBINE

GROUP TENS WITH TENS, ONES WITH ONES

$$13 + 25 = ?$$

1 SPLIT**13**

1 ten

3 ones

25

2 tens

5 ones

2 STACK

TENS

1 ten + 2 tens

= 3 tens

= 30

ONES

3 ones + 5 ones

= 8 ones

= 8**3 COMBINE**

$$30 + 8 = 38$$

NOW YOU TRY

$$32 + 45 = ?$$

1 SPLIT**32** 3 tens
2 ones**45** 4 tens
5 ones**2 STACK**

TENS

3 tens + 4 tens
= 7 tens = 70

ONES

2 ones + 5 ones
= 7 ones = 7**3 COMBINE**

$$70 + 7 = 77$$

THE FIRST LAW OF ADDING

YOU CAN ONLY ADD SIMILAR THINGS TOGETHER


 $+$

 $=$



3 DOTS 3 DOTS 6 DOTS


 $+$

 $=$



3 MANGOES 4 MANGOES 7 MANGOES


 $+$

 $=$



2 HANDS 1 HAND 3 HANDS

BUT WHAT IF YOU MIX?


 $+$

 $=$



3 MANGOES 2 HANDS CANNOT ADD!



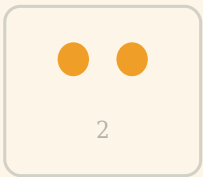
SAME + SAME = MORE OF THE SAME

SAME + DIFFERENT = CANNOT ADD

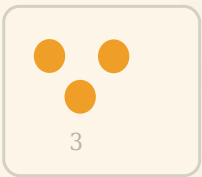
**BEFORE YOU ADD • ASK
WHAT YOU ARE COUNTING**

EXERCISE 1

DRAW THE TOTAL NUMBER OF DOTS

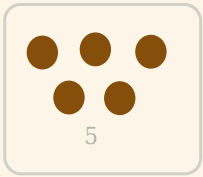


+

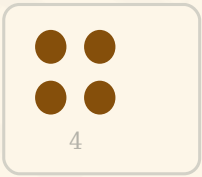


=

DRAW 5 DOTS



+



=

DRAW 9 DOTS

EXERCISE 2

FINISH THE JUMP



START

+4

DRAW 4 JUMPS FROM 3 · MARK WHERE YOU LAND

EXERCISE 3

CIRCLE THE MATCHING BAR

$5 + 3 = ?$

6

A

7

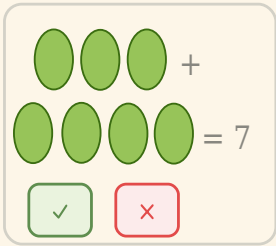
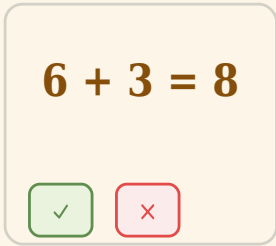
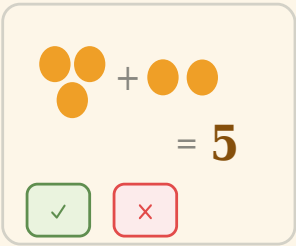
B

8

C

EXERCISE 4

TRUE OR FALSE



EXERCISE 5

ADD THE TRAYS

