Dimensions Math
Grade 3 Letter Home #2

Chapter 2 Addition and Subtraction — Part 1

Dimensions Math
Letters Home

Home Connection

With this chapter, your child reviews strategies for mental math they learned in Grade 2 and begins to draw their own bar models to help solve word problems.

Mental math refers to strategies that leverage number sense. It is a way to make some computation easier, but it does not mean that your child cannot write down numbers while computing. Students will use number bonds to show how they decompose, or split, addends into easier combinations to find the total.

46 + 38

30 8

46 + 30 = 76

76 + 8 = 84

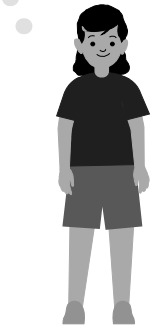
Add tens, then ones.

46 + 38

44 2

38 + 2 = 40

44 + 40 = 84

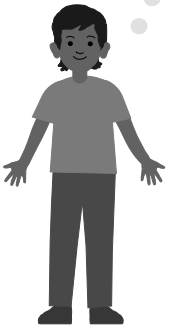


Make the next ten.

40 is **2** more than **38**.

46 + **40** = **86**

86 – **2** = 84



Over-add.

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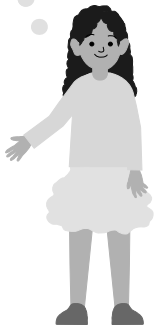
These strategies can be used for three-digit numbers that are multiples of ten:

540 + 380

300 80

540 + 300 = 840

840 + 80 = 920



Add hundreds, then tens.

540 + 380

520 20

20 + 380 = 400

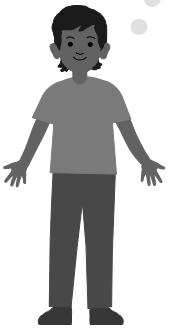
520 + 400 = 920

Make the next ten.

400 is **20** more than **380**.

540 + **400** = **940**

940 – **20** = 920



Over-add.

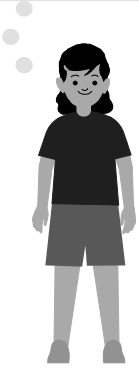
Similar strategies are used for subtraction:

57 – 28

20 8

57 – 20 = 37

37 – 8 = 29



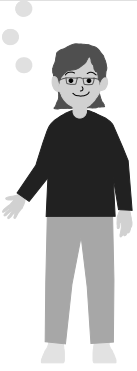
Subtract the tens, then the ones.

57 – 28

27 30

30 – 28 = 2

27 + 2 = 29

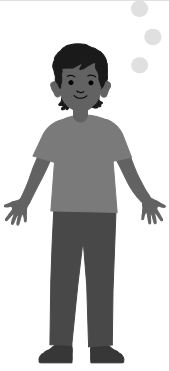


Subtract from a multiple of tens.

30 is **2** more than **28**.

57 – **30** = **27**

27 + **2** = 29



Over-subtract.

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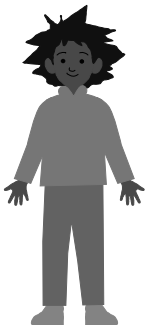
These strategies can also be used for three-digit numbers that are multiples of ten:

450 – 280

200 80

450 – 200 = 250

250 – 80 = 170



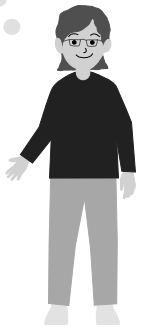
Subtract the hundreds, then the tens.

450 – 280

150 300

300 – 280 = 20

150 + 20 = 170

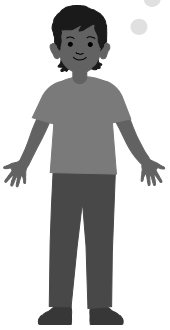


Subtract from a multiple of hundreds.

300 is 20 more than **280.**

450 – **300** = **150**

150 + 20 = 170



Over-subtract.

Your child will also practice drawing bar models, a visual method for representing quantities in a word problem that will be used throughout the Dimensions Math materials. The computations are with simpler numbers to allow your child to focus on the visual representation of the word problem.

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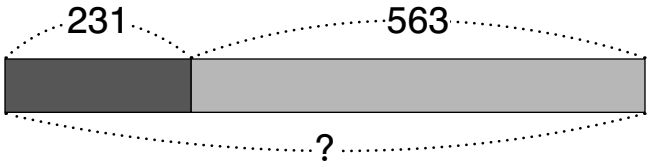
There are two types of bar models students will work with at this level:

Part-Whole Models

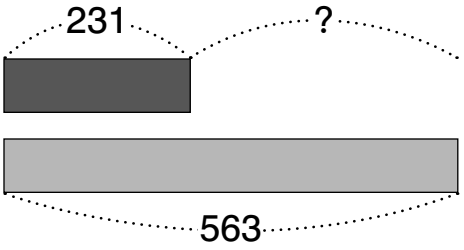
Emma has 231 trading cards.
Dion has 563 trading cards.
How many trading cards do they have altogether?



231 + 563 = 794

Comparison Models

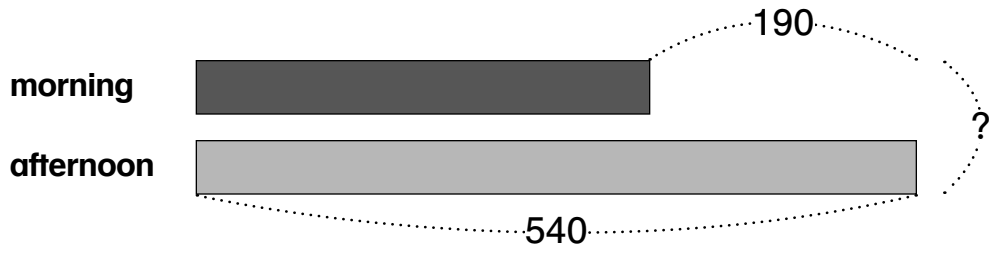
Emma has 231 trading cards.
Dion has 563 trading cards.
How many more trading cards does Dion have than Emma?



563 – 231 = 332

Once students master these bar models, they will be used for two-step problems:

A booth sold 540 corn dogs in the afternoon.
It sold 190 more corn dogs in the afternoon than in the morning.
How many corn dogs were sold that day?



540 – 190 = 350 The booth sold 350 corn dogs in the morning
350 + 540 = 890 The booth sold 890 corn dogs that day.

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What can we do at home?

Your child should know their addition and subtraction facts within 20, to then apply those strategies to multiples of ten: Since 7 + 8 = 15, 7 tens + 8 tens = 15 tens, or 150.

While many adults are more comfortable lining numbers up to calculate, encourage your child to use mental math strategies when appropriate. (387+76 is probably not a good calculation to compute with mental math and will be covered in the next chapter.)

Encourage your student to show and explain how they found their answer.

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