

Core Focus

- Addition: Bridging tens and bridging hundreds with two-digit numbers
- Subtraction: Reviewing strategies and writing fact families

Addition

- A place-value strategy is used to add two-digit numbers. Students start with the greater number and add the parts of the lesser number. For example, see $35 + 21$ and *think* $35 + 20 + 1$, or $35 + 1 + 20$.
- A hundred chart and a number line are used to make their thinking visible.

5.1 Addition: Two-digit numbers (hundred chart)

Step In What is the total cost of these clothes?

How did you figure it out?
How could you use a hundred chart to show how you add the two numbers?

| | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|----|
| 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
| 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |

I would start with 48 and work with the ones first. 48 plus 1 is 49. 49 plus 20 is 69.

I would start with 48 and add the tens first. 48 plus 20 is 68. Then 1 more is 69.

Which method do you like best? Why?

In this lesson, students make jumps of ten and one on a hundred chart to add two-digit numbers.

- Students also use a number line to add. They begin with the greater number and add the parts of the other number by making jumps of tens and ones.
- Students use a variety of strategies when using the number line. They see $43 + 25$ and *think* $43 + 20 + 5$, or they may *think* $43 + 10 + 10 + 5$. Likewise, they may *think* $63 + 5$, or $63 + 2 + 3$.

5.3 Addition: Two-digit numbers (number line)

Step In How can you figure out the total cost of the guitar and book?

How could you use this number line to show how you added?

I started at 73 and added the tens, then the ones of 14. I can draw jumps like this to show how I added.

In this lesson, students use a number line to show their thinking when adding two-digit numbers.

Ideas for Home

- Children already enjoy counting by tens starting at 10 (20, 30 ...). Ask your child to count by tens starting from other numbers. E.g. count by tens starting from 23 (33, 43, 53 ...).

Helpful video

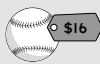

View these short one-minute videos to see these ideas in action.

www.bit.ly/OI_7

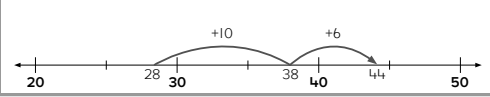
www.bit.ly/OI_2

- Base-10 blocks and number lines are used to make thinking visible.

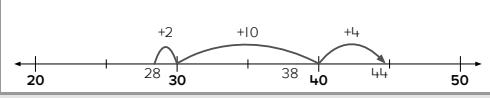
5.5 Addition: Two-digit numbers bridging tens (number line)

Step In Do you think that the total cost of these two items is more or less than \$40?  

How did you decide?
Amber uses a number line to figure out the total cost.



What steps does Amber follow?
Jerome uses a different method.



What steps does Jerome follow?
Which method do you prefer? Why?

In this lesson, students break one or both numbers into tens and ones.

Ideas for Home

- Name a quantity under 20 and tell your child one part. Ask them to name the other part and explain how they know. E.g. say “My number is 15 and one part is 9. What is the other part?”


Subtraction


- Students review writing related doubles and near-doubles addition and subtraction facts.

5.8 Subtraction: Reviewing the think-addition strategy (doubles facts)

Step In There are 15 cows on this farm. Some of the cows are in the barn.


How could you figure out the number of cows in the barn?



I could start with 15 and take away 7, or I could think **7 plus something is 15.** 

- Students determine the total or part in an unknown-addend problem and write the two addition and two related subtraction facts to match.

5.9 Subtraction: Reinforcing the think-addition strategy (doubles facts)

Step In There were some plates in the cabinet. Matthew took out 5 large plates with a blue edge. Now there are 7 plates in the cabinet. How many plates were in the cabinet before? 

What information helps you solve the problem?
What addition equation can you write to match the story?
What subtraction equation can you write?

I could write $7 + 5 = ?$ to show it as addition.
I could write $? - 5 = 7$ to show it as subtraction.
The unknown number is the same in both equations. 