



Core Focus

- Using various strategies to add two-digit numbers
- Reading and writing time on the hour and half-hour
- Working with duration (hours and minutes)

Addition

- Students continue to build their understanding of addition and subtraction by thinking about putting parts together to make a total, as well as separating a total into parts.
- It is important to see that the order does not matter when two parts together are put together (e.g. $18 + 12$ and $12 + 18$ both make 30).

2.2 Using the Commutative Property of Addition with Count-On Facts

Look at these pictures. What do you notice?

What addition facts could you write to match the pictures?
What do you call a pair of facts like this?

These are called turnaround facts. Turnaround facts have the same parts and the same total.

In this lesson, a hanger and clothespins illustrate that 2 add 3, and 3 add 2 both make a total of 5.

Numbers in Base-10

- The count-on strategy learned in Grade 1 is extended to work with two-digit numbers. Students see $35 + 21$ and *think* $35 + 20 + 1$, or $35 + 1 + 20$.
- A hundred chart and a number line are used to make the thinking visible.

2.6 Using Place Value (Hundred Chart) to Add Two-Digit Numbers

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?

11	12	13	14	15	16	17	18	19	20
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 add the tens first. 48 plus 20 is 68. Then 1 more is 69.

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

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

Ideas for Home

- Create addition stories at home for your child to solve. E.g. say, “There are five cups on the table and seven cups in the cupboard. How many cups is that?” Be sure to also ask how they know.
- Also tell subtraction stories. E.g. “Earlier, there were nine cars in the parking lot. Now there are only six. How many cars have left? How do you know?” One way your child might solve this is to think of six and how many more make nine.
- 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 ...).

Glossary

- ▶ **Turnaround facts** have the same parts and same total.

$$4 + 1 = 5$$

is the turnaround for

$$1 + 4 = 5$$

- Students also use a number line to add. They begin with the larger 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* $43 + 20$, or they may *think* $43 + 10 + 10$. Likewise, they may *think* $63 + 5$ or $63 + 2 + 3$ or $63 + 1 + 1 + 1 + 1 + 1$.

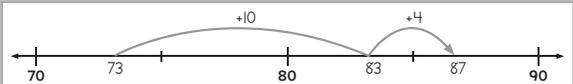
2.7 Using Place Value (Number Line) to Add Two-Digit Numbers

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.

Time

- Although students might read times on the half-hour as “half past 6” and as “six thirty”, they may not yet understand that there are 60 minutes in each hour.
- It is important to realize the variety of ways that we report times, e.g. for 3:10, we can say three-ten, ten after three, or ten past three.
- Students begin to read times that are shown for any five-minute interval past the hour, such as 8:25. They count the five-minute intervals to describe how far the minute hand has moved.

2.9 Working with Duration (Hours)

What time is shown on this clock?
How do you know?

Where will the clock hands be pointing **one hour later**?
How do you know?

What time is one hour later than 8 o'clock?

Look at these two clocks.

Imagine the clock on the left shows the start time for a movie and the clock on the right shows the finish time.

How long is the movie? How do you know?

How will the clock hands move during that time? How do you know?






The minute hand will make 2 full turns around the clock and at the same time the hour hand will move forward 2 numbers to show 2 hours.

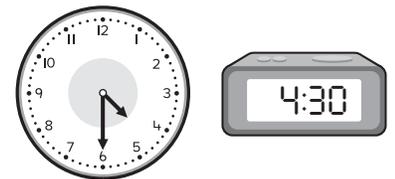
In this lesson, students work with the duration of events that start and finish on the hour and at times half past the hour.

Ideas for Home

- Help your child develop an understanding of elapsed time by talking informally during daily activities, e.g. “We must leave for school at 8:30. Can you figure how much time until then?”
- Counting by fives while pointing to the numbers around the clock face is a great activity you can do with your child and is the first step toward them being able to read times such as 2:05 and 4:35.
- Point to your watch or an analog clock (with hour and minute hands) and ask your child to tell you the time. Ask them to describe the time in more than one way, e.g. “it’s 7:30” or “half past 7”.

Glossary

- ▶ Students read the time on **analog** clocks and **digital** clocks.



Both of these clocks could be read as “four thirty”, “half past four” and “30 minutes past four”.