



## Core Focus

- Subtracting two-digit numbers using various strategies
- Using doubles to add and subtract
- Working with time (quarter past the hour, a.m. and p.m., timetables and calendars)

## Subtraction

- Students now use subtraction to compare two amounts (e.g. “Marta has 12 pencils and Jeremy has 3. How many more pencils does Marta have than Jeremy?”).
- Answers to comparison subtraction problems can be solved by either **counting on** or **counting back**. The difference can be recorded in a subtraction sentence ( $12 - 3 = 9$ ), or an addition sentence ( $3 + 9 = 12$ ).

**4.1 Exploring the Comparison Model of Subtraction**

Look at these cubes.  
How many gray cubes are there?  
How many white cubes are there?  
How many more white cubes are there than gray cubes?  
How could you figure it out?

How could you show your thinking on a number track?

I can count on or count back. The **difference** between the numbers is always three jumps.

In this lesson, students learn about the comparison model of subtraction.

- Students use a hundred chart to show their thinking when solving a subtraction problem. They decide whether to subtract the tens first and then the ones, or subtract the ones first and then the tens. Students describe their strategies to each other.

**4.3 Using Place Value (Hundred Chart) to Subtract Two-Digit Numbers**

How much money will be left in the wallet after buying the ball?  
How did you figure it out?  
How could you use this chart to show how to subtract the price?

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 67 and subtract the tens and the ones of the price. 67 take away 20 is 47. Then 1 less is 46.

I would subtract the ones then the tens of the price. 67 take away 1 is 66. Then 66 take away 20 is 46.

In this lesson, students count back the parts (tens and ones) to subtract two-digit numbers from two-digit numbers.

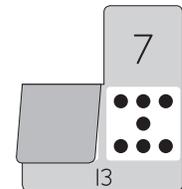
- Students also use a number line to make their thinking visible. E.g. students see  $67 - 23$  and *think*  $67 - 20 - 3$ , or  $67 - 3 - 20$ .

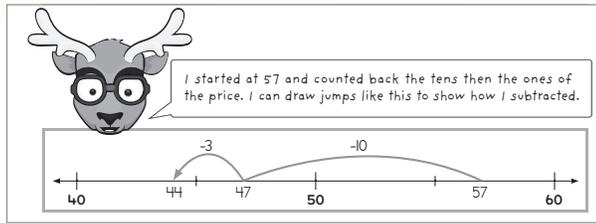
## Ideas for Home

- Talk about everyday situations that involve comparison. E.g. if your child notices that their sibling has more crackers than they do, ask how many more. Listen for how they solve the problem — by either counting on, or counting back.
- Counting back in tens or ones from any number is a key skill for subtraction. Take turns to name a number between 51 and 99. Roll a standard number cube and count back that many tens or ones.

## Glossary

- ▶ Part-part-whole cards help students solve subtraction problems. Students see the total and one of the parts. They “think addition” to find the unknown part (e.g. “7 add how much equals 13?”).





In this lesson, students count back the parts (tens and ones) on a number line.

**Addition**

- In Grade 1, students learned the use-doubles mental strategy for addition facts. In Grade 2, this strategy is extended to adding two-digit numbers.

**4.8 Extending the Doubles Addition Strategy Beyond the Facts**

Look at this shirt. What will be the total cost of two shirts? How could you figure it out?

20 is the same as 2 tens. Double 2 is 4 so double 2 tens is 4 tens. The total is \$40.

How could you figure out the total cost of two pairs of shorts?

I could double the tens first. Double 20 is 40. Then I would double the ones. Double 3 is 6. So \$40 plus \$6 is \$46.

In this lesson, students investigate strategies for doubling two-digit numbers.

**Working with Time**

- Students now read time as “nine fifteen” or “15 minutes past 9.” Students see that “a quarter past 9” makes sense when they think of the clock face as a circle and 15 minutes is one-quarter of the circle. This language connects to early fraction work students will encounter later in the school year.
- Students learn that the notation a.m. describes time between midnight and midday, and p.m. describes time between midday and midnight.

**4.9 Working with Time Quarter Past the Hour**

Look at this analog clock. Where will the hands be pointing when the time is 11 o'clock? How do you know?

Where will the hands be pointing when the time is half past 11? How do you know?

How many minutes has the minute hand moved past the hour on this clock? What are the different ways you could read or say the time shown on the clock?

Fifteen minutes past nine, nine fifteen, or a quarter past nine.

How could you show the same time on this digital clock? How do you know?

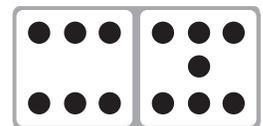
In this lesson, students read and write time quarter past the hour on analog and digital clocks.

**Ideas for Home**

- Use dimes and pennies to model using doubles with two-digit numbers. Select up to 4 dimes and 5 pennies and ask your child to double the amount shown. E.g. your child sees 3 dimes and 4 pennies and says, “Double 3 is 6 dimes, that’s 60. Double 4 is 8 pennies, that’s 8. That’s 68 in total.”
- Involve your child in reading calendars and timetables whenever the opportunity arises. Mark special dates on the calendar and count the days until an event.
- Look up the start times and running times of movies. Help your child show where the hour and minute hands will be when the movie starts and when it ends.

**Glossary**

- Use-double strategy is where students see  $6 + 6$  and *think* double 6 is 12; or see  $6 + 7$  and *think* double 6 plus 1 is 13. Students use dominos to review related doubles and near-doubles addition and subtraction facts.



- Students read time on analog and digital clocks.

