

49.2000692N, 16.6136281E

NUMBERS, NUMBERS EVERYWHERE

Written by
MAGDA GARGULÁKOVÁ

Illustrated by
SEAN LONGCROFT



25



2

1


3

Albatros

**NUMBERS,
NUMBERS
EVERYWHERE**

We are surrounded
by numbers.
But why are they
so important?
What do we use
them for?
And what
do they tell us?

**WHAT'S A NUMBER
AND WHAT'S A
NUMERAL?**



4

**NUMBERS WE
FIND OUR WAY BY**



3 miles
1 mile


6

**NUMBERS THAT
EXPRESS AGE**




20

**NUMBERS
IN SPORTS**



22

DIVISION




24

**NUMBERS TO
PLAY WITH**



8

**NUMBERS THAT
GIVE MONETARY
VALUE**



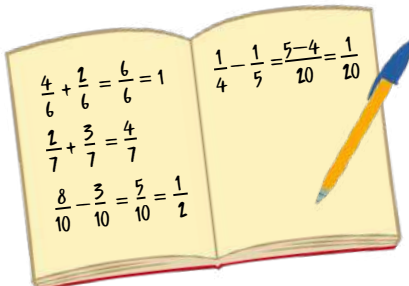
10

**NUMBERS THAT
OPEN UP SECRET
PLACES**



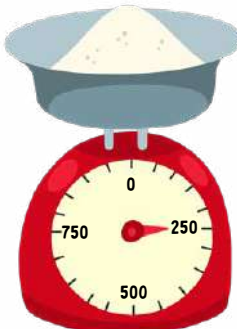
12

**NUMBERS
AT SCHOOL**




26

**NUMBERS IN
THE HOUSEHOLD**




28

**NUMBERS THAT
MEASURE & WEIGH**



30

**TIME, CLOCKS
& FORMATS**



14

**NUMBERS THAT
TELL TIME**



16

**NUMBERS
THAT KEEP
US ORGANIZED**



18

**NUMBERS
FOR RULES**



32

**NUMBERS THAT
SAY SOMETHING
ABOUT US**



34

**NUMBERS THAT
TELL US ABOUT
THE WORLD**



36

WHAT'S A NUMBER AND WHAT'S A NUMERAL?

Numbers are nothing new for you. You learned about them at an early age, long before you understood their meaning and how to use them. **Numbers** are symbols that determine quantity and order. They are practically everywhere—at home, in shops, in the street, at school . . . They play a very important role in our everyday lives. Oh how we would struggle to get by without them!

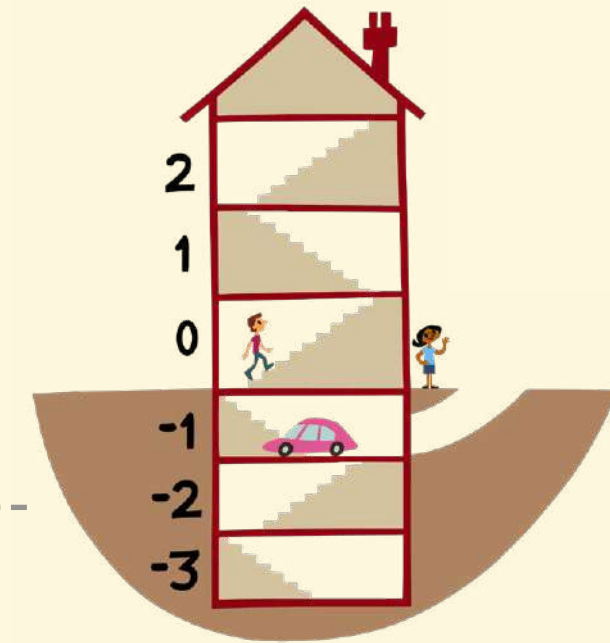
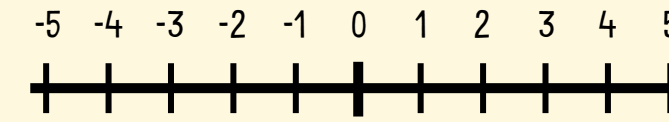
So that we can see these numbers, we need symbols, known as **numerals**. These work just like letters do. Each letter of the alphabet is shown as a symbol, which we can read and put together with other symbols to make words. It's the same with numerals.



0–9 are the numerical digits, and each has a different value. Although there are only 10 numerals, we can use them to make any number we like. All we have to do is line them up.



There are negative numbers as well as positive ones. We recognize a negative number by the minus sign in front of it. It represents anything less than 0. Imagine a house with some floors above ground and some floors below.

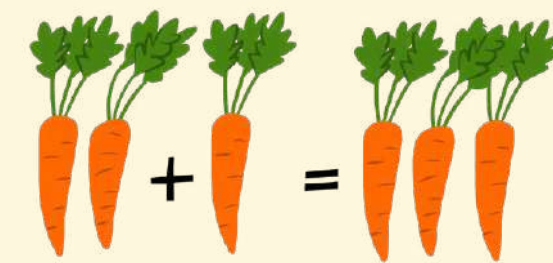


The many ways we use numbers include when we want to:

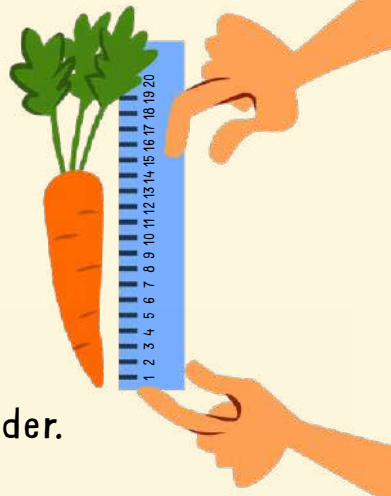
count . . .



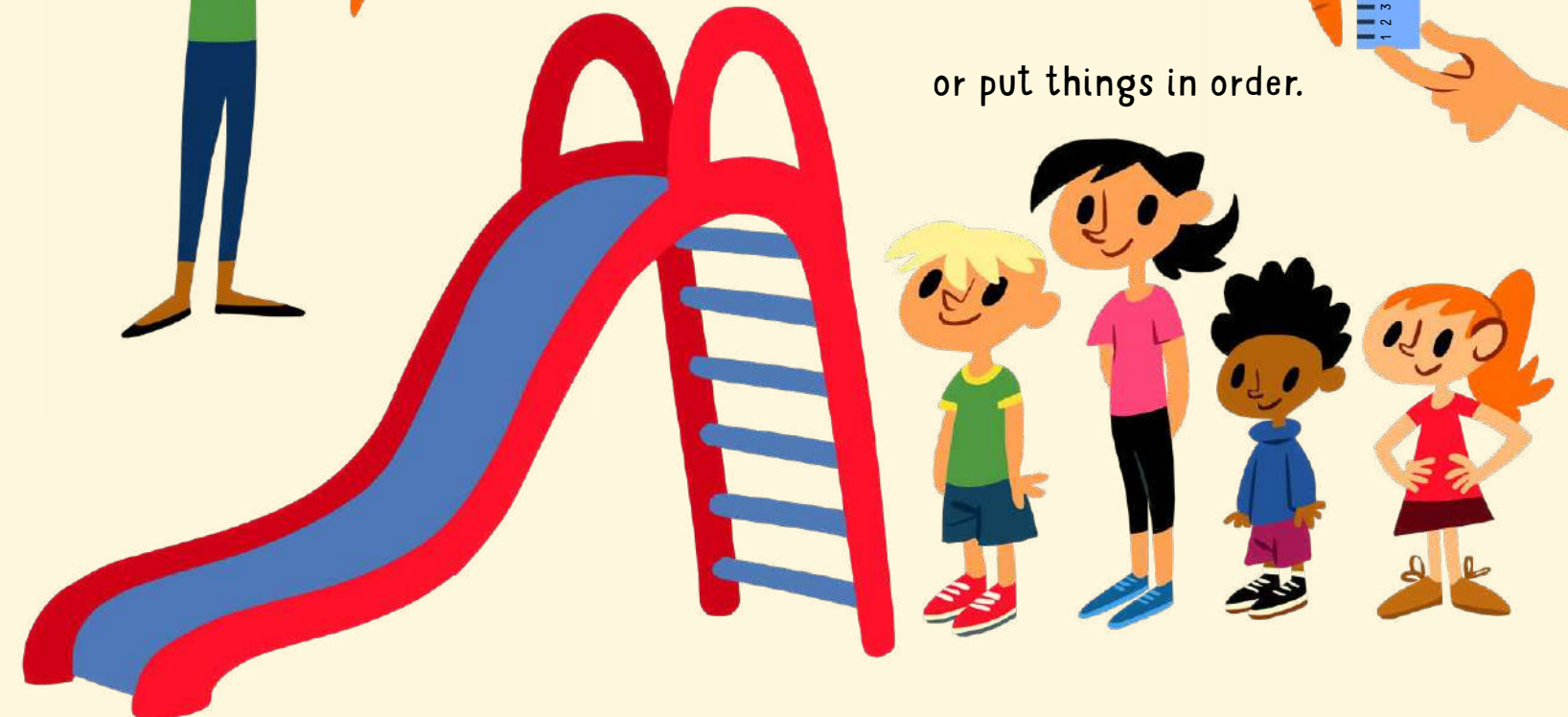
add . . .



measure . . .



or put things in order.



Numbers help us with many, many more things too. Let's take a look at what they are.

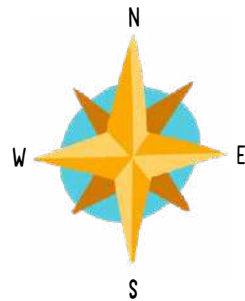


Every child in this city knows that Tram No. 3 goes to the zoo.

I'd like to drive down the famous Route 66. Wouldn't you?



Without GPS coordinates, we would never have found the hunting lodge.



49.1668906N,
13.6066886E



Numbers we FIND OUR WAY BY

... show us distance and direction. They tell us which route to take and where to find what we're looking for. Thanks to numbers, we get on the right bus, leaf through a book to the right page, and find the building where our friend lives. Numbers help us find our way around so we don't get lost.



My favorite story is the one about the dragon on page 18.



Ah!
Number 7—my
room. I can
rest at last!



25



Grandma lives at
25 Flower Street.

The hairdresser's salon
is on the 5th floor.
Let's take the elevator.



I'd rather go to
the museum. The pond
is too far.



Numbers to PLAY WITH

... move our piece forward on the board. They set our course. They let us enter the next round of a computer game or win a game of cards. These numbers are fun! What's more, things like hopscotch, dice games, and numbered pictures teach us from a young age to tell numbers apart, name them, and put them in the right order.

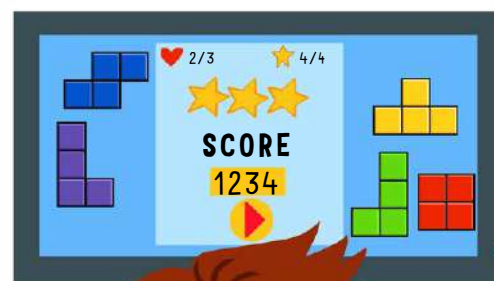
I need the 8 of diamonds. Does anyone have it?



Yay! I've made it to the next round!



Numbers 1 to 4 must appear once in every row, across and down. Can you crack it?

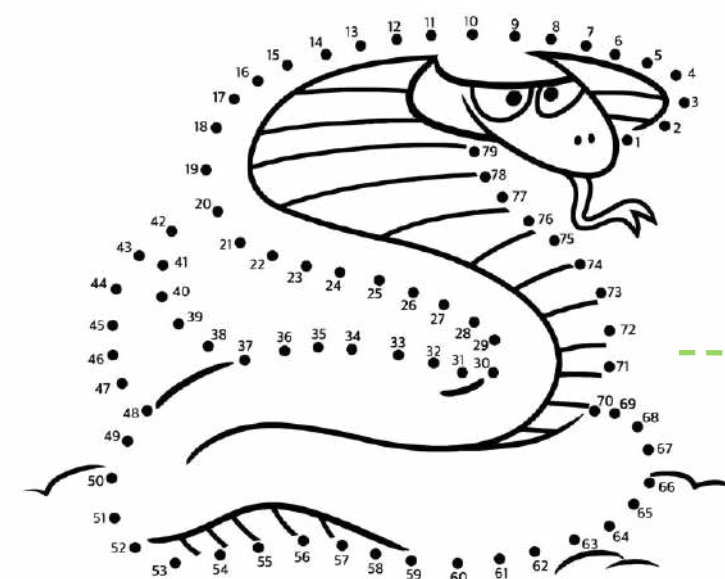


I'm on square 15 already. Looks like I'm going to win today.



The next number in the draw is ... 16!

I'm almost there ... I'm about to hop to the end!



Will you draw the rest of me?

I still don't understand why the blue one is more expensive. They look the same ...



Though we can't see it, a bar code contains the price.



That'll be \$40, please.



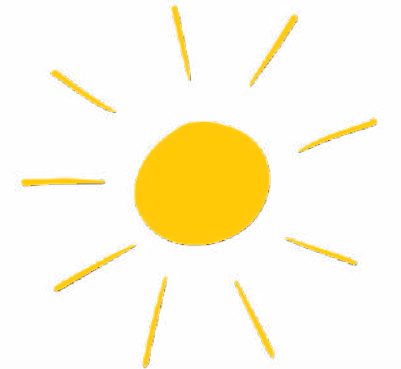
Numbers that give **MONETARY VALUE**

20 bucks? That's pretty expensive for a plain old lunch?



... tell us how much something costs. Now we know how much to pay before buying something from a store or having lunch in a restaurant. Price tags in shops, dollar bills and coins, special offers in toy catalogs—the numbers on these are the ones we encounter the most in everyday life.

Yay! I've finally saved up for the robot I've always wanted.



Should we buy skis? They're much cheaper in the summer.

I wonder if this little house will sell for this much money.



FOR SALE
\$800,000





A number-based cipher ... Quick, let's figure it out!

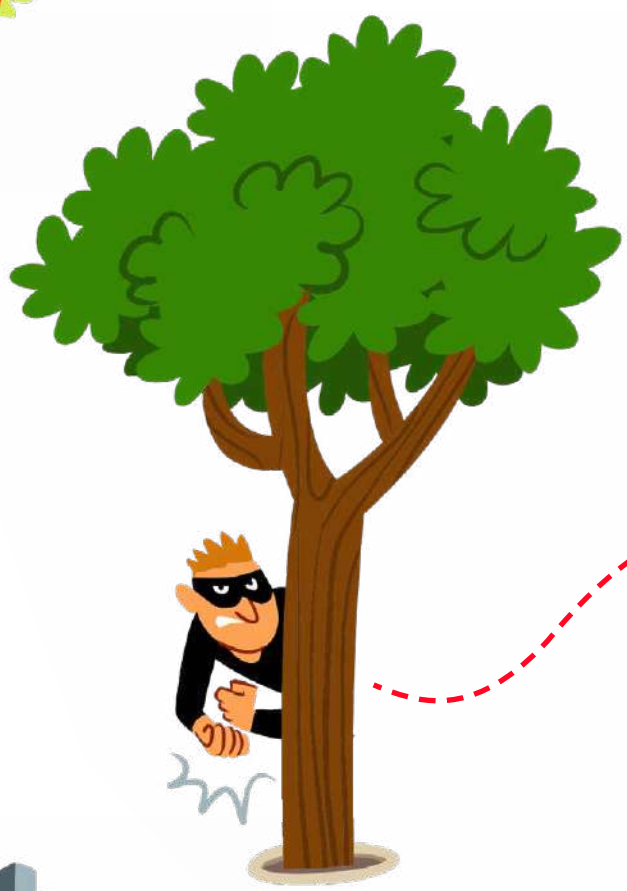
Numbers that open up SECRET PLACES

... allow us into places that others can't reach. Often, they come in a combination, allowing those who know it to open a secure apartment, a safe filled with valuables, or a cellphone. They also enable us to withdraw money from a cash machine. In short, they protect our property from thieves and prying eyes. And that's not all: if we know how, we can use them to decipher secret messages, one of which may lead us to hidden treasure!

No one but me knows the passcode for my phone.



8, 4, 5, 1, 3
... CLICK ...
And the family safe is open!



Darn, a combination lock ... I'm out of luck again!



Whoops! I got the code wrong again.



Enter my PIN code, collect my money, and off I go to the toy shop!

Hah! Thanks to the coordinates on this map, that treasure is mine!



Let us take a little detour here—down the path of time...

You probably see numbers on clocks every day. What's more, everyone mentions them regularly. That's because time affects most of what we do. By learning to manage our time well, we make our lives calmer and avoid a lot of unpleasantness.

TIME, CLOCKS & FORMATS



Because telling the time on a clock is quite complicated, it takes a while to learn it. Clocks divide time into large and small periods, known as hours, minutes, and seconds. These give us the exact time whenever we look at them. Not all clocks look the same, however. Some have hands, while others (digital ones) show digits.

Digital clock

It has numerals to show the time.

The number before the colon shows the hour.



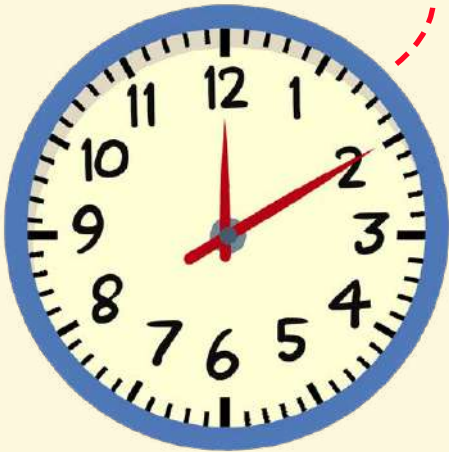
The number after the colon shows the minute.

The small hand shows the hour.

The big hand shows the minute.

Clocks with hands

It has a face with the numerals 1 to 12 and two hands that spin slowly around all the time.



Learning to tell the time

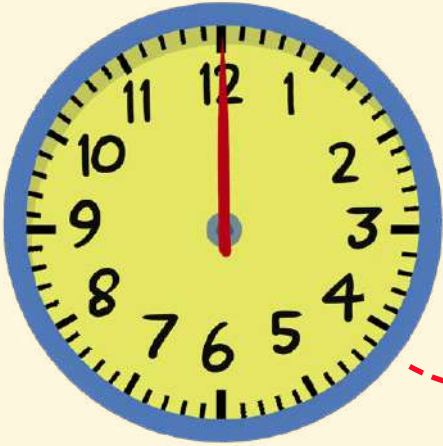
Each day has 24 hours. Each hour has 60 minutes. As a beginner, it is enough for you to recognize the 1/4 hour, the 1/2 hour and the 3/4 hour—and to know how many minutes each has. Before long, you will understand time much better.



1/4 hour = 15 minutes



1/2 hour = 30 minutes



1 hour = 60 minutes

1 line = 1 minute



3/4 hour = 45 minutes

Roman numerals

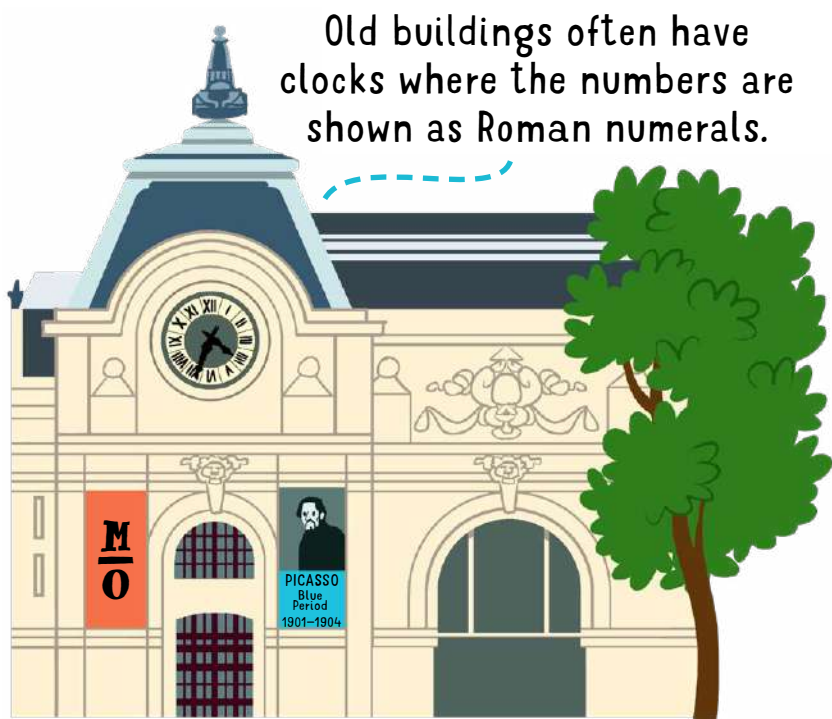
Sometimes the numbers (and the numbers on clocks) are quite different. Some numbers don't look like numbers at all. Roman numerals, for instance, are numbers expressed as letters.

1	I	7	VII
2	II	8	VIII
3	III	9	IX
4	IV	10	X
5	V	11	XI
6	VI	12	XII



OK, let's move on. Time is pressing...





Old buildings often have clocks where the numbers are shown as Roman numerals.

Numbers that tell TIME

... tell us when we need to be where, and exactly when our train leaves ... Like it or not, the world around us is time dependent. Time rules almost everything. When we plan to meet up with friends, we agree on a time. When we arrive at school or the doctor's, we do so at a particular time. It takes a certain amount of time to cook lunch. And what would be the point of arriving at a birthday party before it begins?

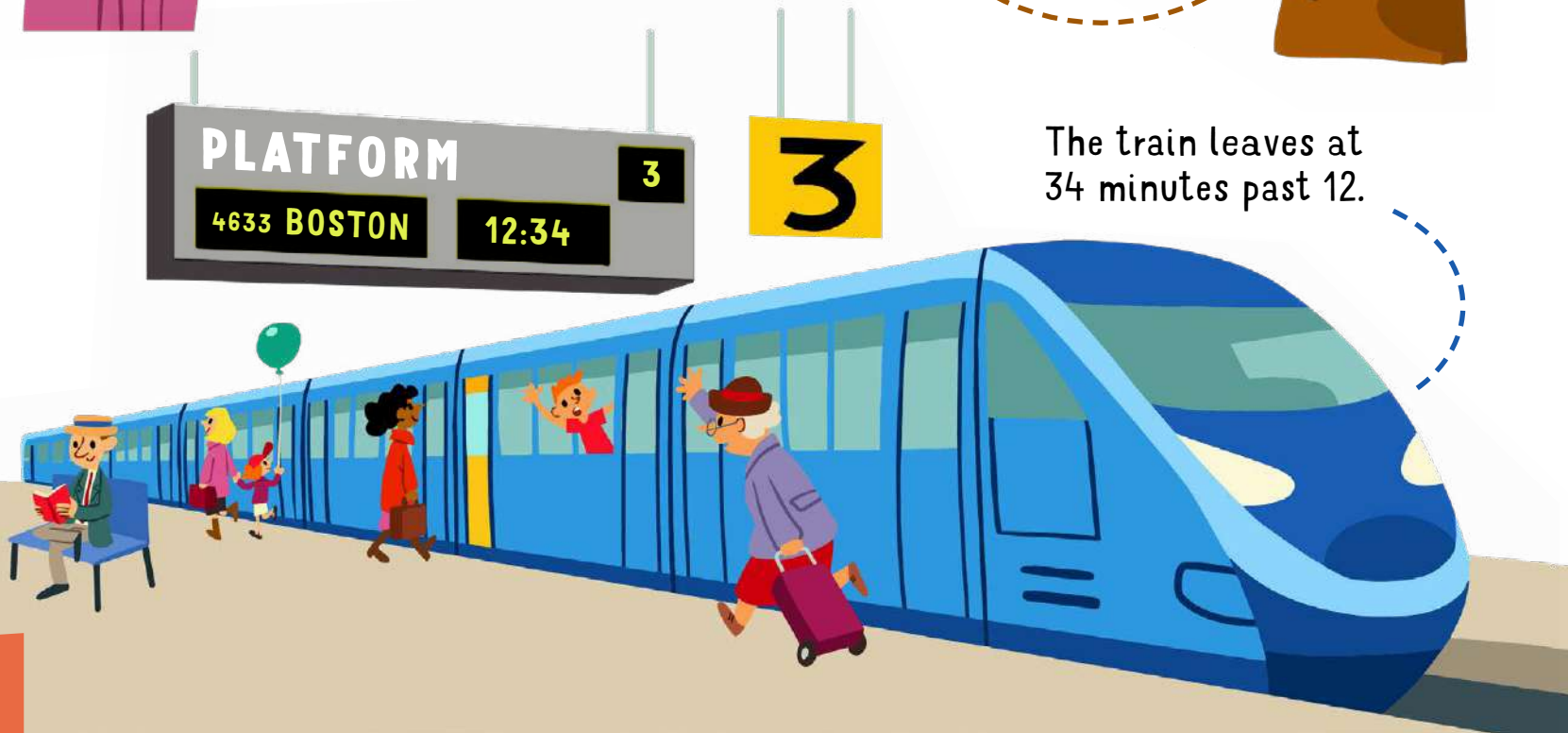


My first Advent surprise.



Tomorrow is my big day.

The train leaves at 34 minutes past 12.



Do you want to come to my birthday party?

It's exactly 4 o'clock.



You're late again!!!



We must be patient ... How many minutes are left?



Can't you read?
No parking here
between 7 a.m.
and 9 p.m.!



Numbers that keep us ORGANIZED

Each passport
has its own
unique number.

... help society work better and create order. A passport number identifies the holder. A registration number for a car identifies its owner. Numbers lead us to our seats at the movies and the waiter to our table with our food. Without them, we would struggle to learn which platform our train will leave from, and at what time ... These numbers are super valuable to the lives we lead.



Drat! The train
to Philadelphia
is delayed.

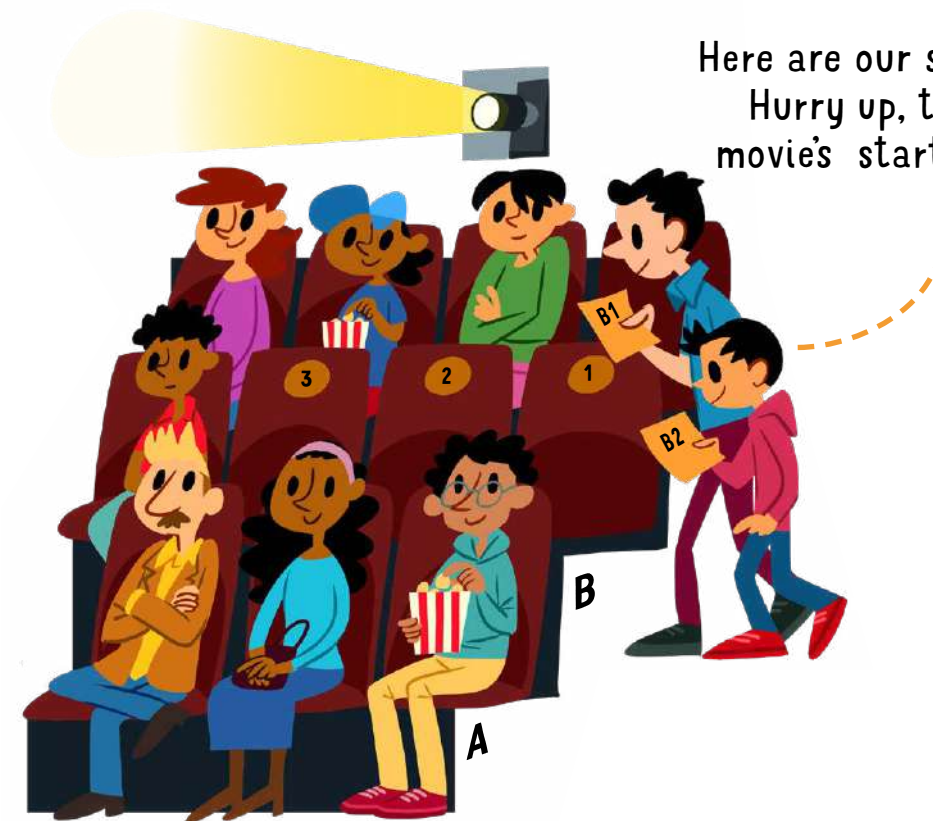
NO.	DESTINATION	PLAT.	DEPARTURES	DELAY
856	PHILADELPHIA	5	10:00	20
992	BOSTON	2	10:10	
735	PROVIDENCE	3	10:16	
326	BALTIMORE	6	10:18	
256	NEW YORK	4	10:21	



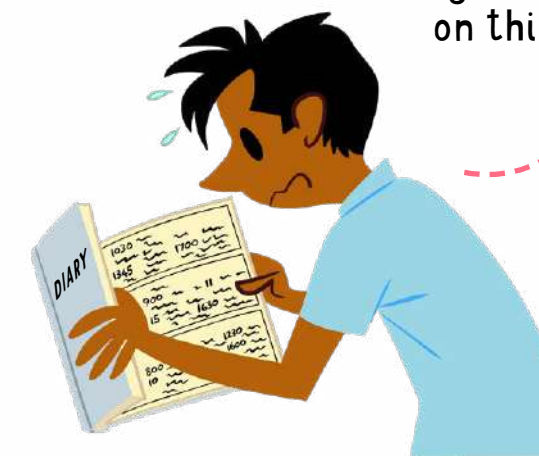
Chef's surprise for
Table 5.



Here are our seats.
Hurry up, the
movie's starting.



I've got a lot going
on this week.



A license
plate must be
visible at
all times ...

This is too much for me.
I'll have to call for help.

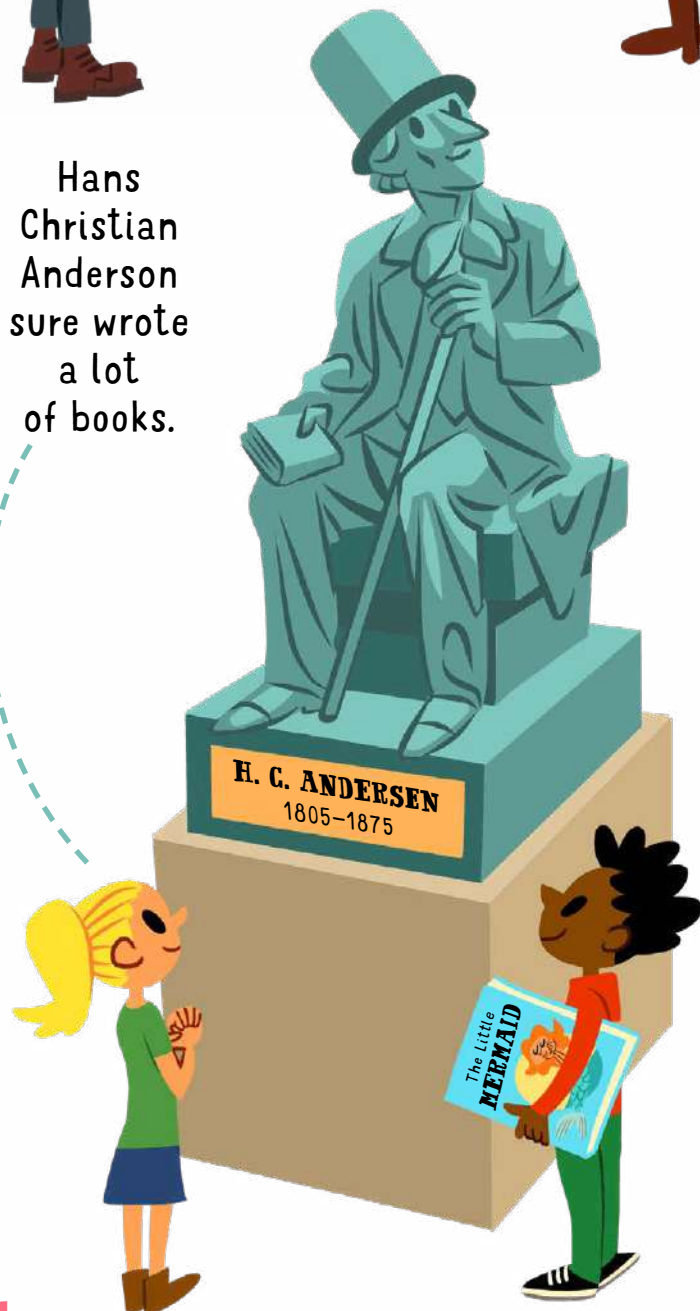


These colors are so bright, even after all these years. Amazing!



VINCENT VAN GOGH
Wheatfield with Crows
1890

Hans Christian Anderson sure wrote a lot of books.

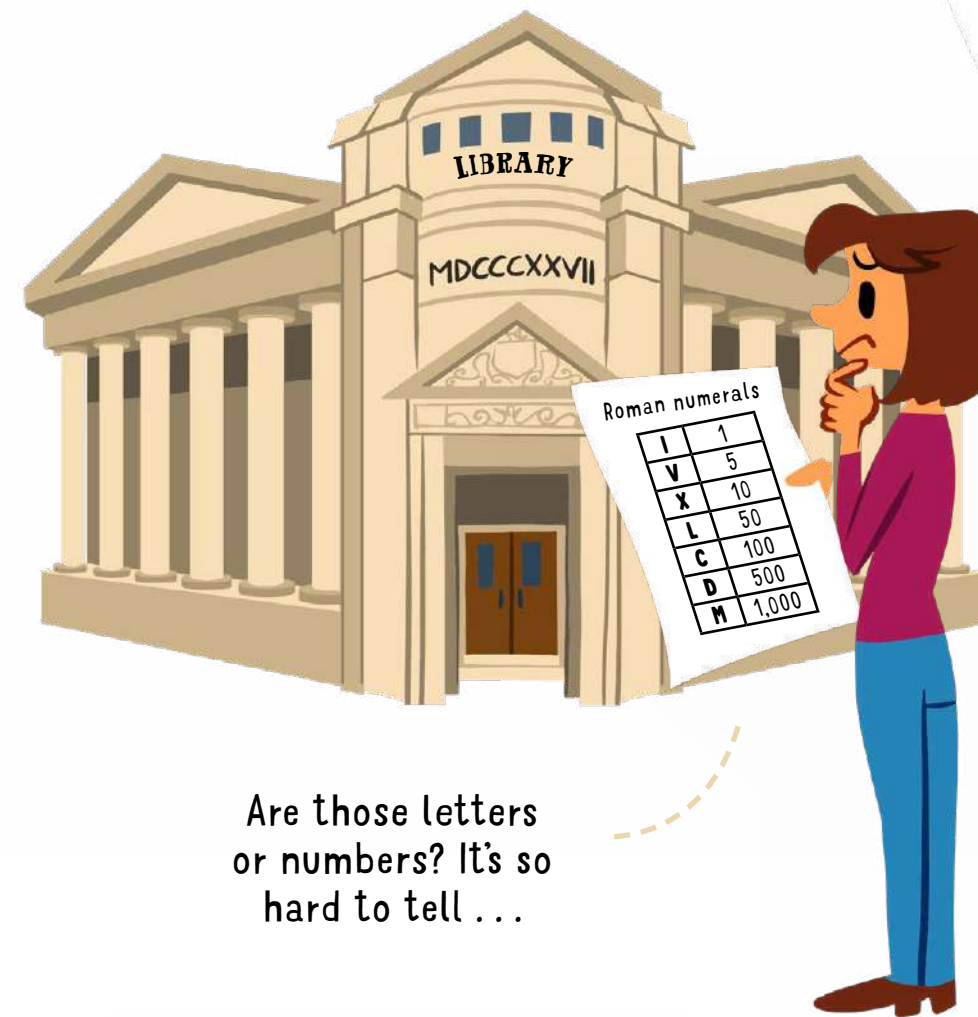
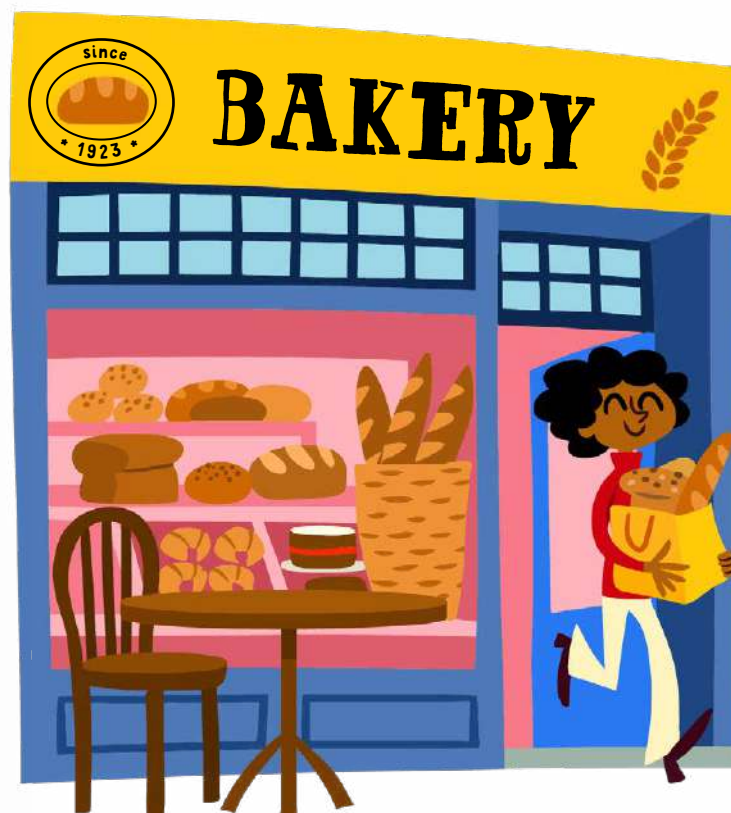


H. C. ANDERSEN
1805–1875

Numbers that express **AGE**

... indicate the time that something took or will take. They return us to the past, be it distant or recent. They express how old we are, and they tell us things like when a library was built and when a famous writer or ruler lived. Plus, they warn us about when food is no longer safe to eat.

We have been serving satisfied customers for nearly 100 years.



Are those letters or numbers? It's so hard to tell ...



I've been in the world for 2 days now ...

... And we've been here for 80 years ...



Yuck! This yogurt is way past its expiration by!





© B4U Publishing for Albatros,
 an imprint of Albatros Media Group, 2023
 5. května 1746/22, Prague 4, Czech Republic
 Written by Magda Garguláková
 Illustrations © Sean Longcroft
 Translated by Andrew Oakland
 Edited by Scott Alexander Jones

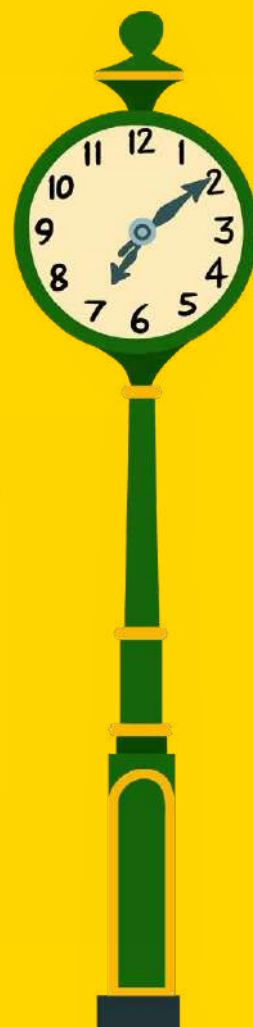
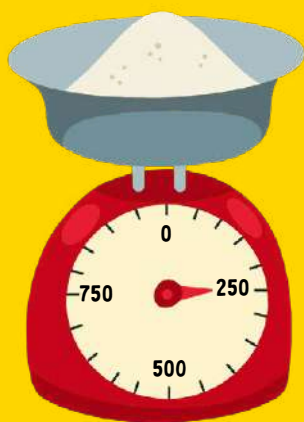
Printed in China by Leo Paper Group

All rights reserved.
 Reproduction of any content is strictly prohibited without
 the written permission of the rights holders.





Take a look around you—at home, on the street, at the train station, wherever. How many numbers do you see? Quite a lot, right? It may not seem so at first glance, but there are numbers all around us. By now, you can probably read them, maybe even count with them. But do you know what is happening behind these numbers? Do you know what they tell us? Numbers aren't just about math and counting, what time it is, or how much things cost. They do much, much more . . . Come with us as we open a door into the numerous worlds of numbers . . .



Check out the other
release in this series:



\$ 16.95
Printed in China by Leo Paper Group
www.albatrosbooks.com



Albatros Media



Albatros Books



albatros_books



Albatros Media US



BooksAlbatros