

SIGMABUDGIE · GRADE 2

Numbers & Place Value

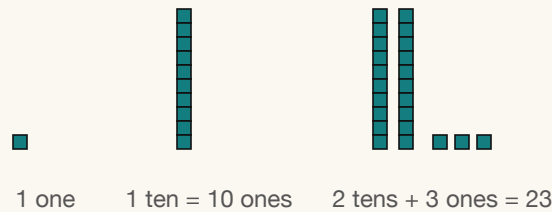
A gentle walkthrough & a 24-question exam

Part 1 walks through tens and ones, comparing, and counting from the very beginning, with drawings. Part 2 is a 24-question exam that starts easy and slowly builds to harder, ISEE-style reasoning questions. Work through the lesson together first, then let your child try the exam. The answer key at the back explains every question.

1 · Tens and ones

We count in groups of **ten**. One little cube is a **one**. Ten cubes in a row make a **ten**.

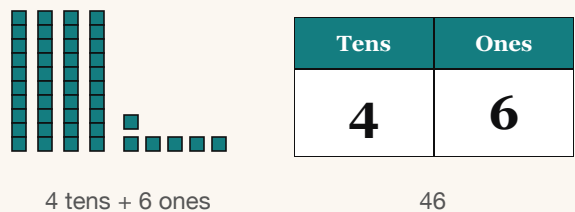
2 tens and 3 ones make **23**. The first digit tells the tens, the second tells the ones.



2 · Reading a number from blocks

Count the tens first, then the ones. 4 tens and 6 ones: **46**.

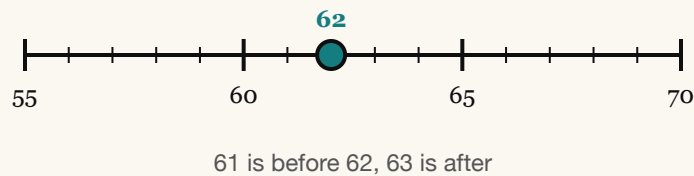
The chart shows where each digit lives: 4 in the **tens** place, 6 in the **ones** place.



3 · Before, after, between

The number **just before** 62 is 61. The number **just after** 62 is 63. The number **between** 61 and 63 is 62.

A number line shows the order. Move left for smaller, right for bigger.



4 • Which is bigger?

Compare the **tens first**. 87 or 69? 8 tens beats 6 tens, so **87 is greater**. We write $87 > 69$.

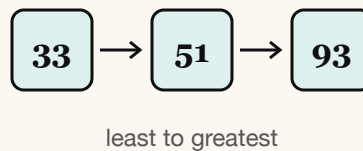
If the tens tie, compare the ones. 54 or 58? Same tens, and 8 beats 4, so 58 is greater.

Tens	Ones	Tens	Ones
8	7	6	9
8 tens		6 tens, so $87 > 69$	

5 • Putting numbers in order

Least to greatest means smallest first. 93, 51, 33 becomes **33, 51, 93**. Check the tens: 3, then 5, then 9.

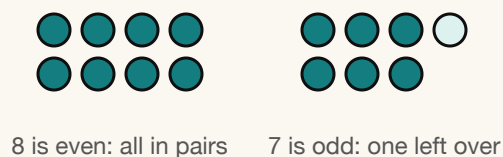
Greatest to least is the other way around: 93, 51, 33.



6 • Even and odd

Put the dots in pairs. If every dot has a partner, the number is **even**. If one is left alone, it is **odd**.

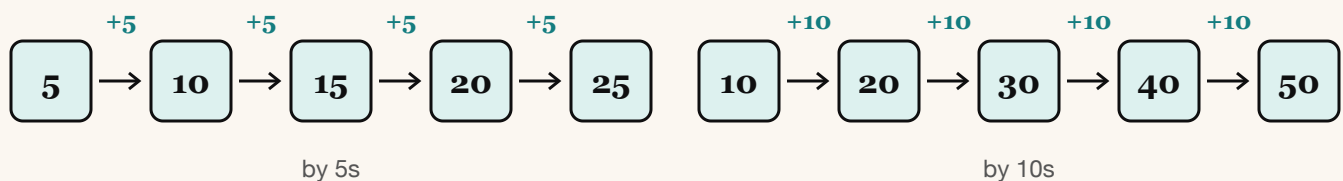
Even numbers end in 0, 2, 4, 6, or 8. Odd numbers end in 1, 3, 5, 7, or 9. So 32 is even and 17 is odd.



7 • Skip counting

Count by **2s**: 2, 4, 6, 8, 10. By **5s**: 5, 10, 15, 20. By **10s**: 10, 20, 30, 40.

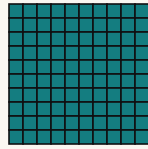
Skip counting is fast counting. It helps with money, time, and equal groups later.



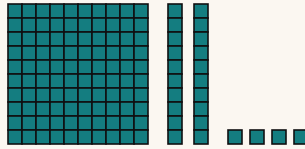
8 • Hundreds

Ten tens make a **hundred**. It is a big flat square of 100 little cubes.

1 hundred, 2 tens, and 4 ones is **124**. Now there are three places: hundreds, tens, ones.



1 hundred = 10 tens



124

9 • Reading three-digit numbers

352 is 3 hundreds, 5 tens, 2 ones. Stretched out: **300 + 50 + 2**.

The 5 is worth **50**, because it sits in the tens place.

Hundreds	Tens	Ones
3	5	2

$$300 + 50 + 2 = 352$$

10 • Ten more, ten less

10 more than 47 is 57: the tens digit goes up by 1. **10 less** is 37.

1 more than 47 is 48, and **1 less** is 46: only the ones digit changes.



10 less, the number, 10 more

11 • Number words

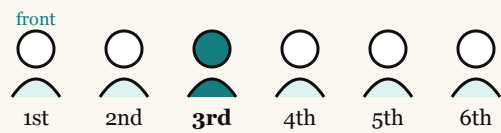
Tens have names: twenty, thirty, forty, fifty, sixty, seventy, eighty, ninety. Then add the ones: **seventy-four** is 74.

Watch the tricky ones: **fourteen** is 14, but **forty** is 40.

12 · First, second, third...

Position words tell **where** in a line: first, second, third, fourth, fifth, sixth.

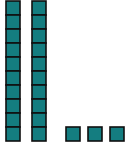
6 kids stand in a line. The kid **2 places behind the first** is in **third** place. Count: first, then one behind is second, two behind is third. You are ready for the test! 🎉



2 places behind the first kid is third

Read each drawing first, then choose the best answer. Take your time, there is no clock here. Questions start gentle and get harder toward the end. Circle your answer.

- 1 What number do the blocks show?



- | | |
|-------------|--------------|
| A 32 | B 5 |
| C 23 | D 203 |
-

- 2 In 46, which digit is in the tens place?

- | | |
|-------------|-------------|
| A 4 | B 6 |
| C 10 | D 46 |
-

- 3 Which number is greater, 31 or 20?

- | | |
|--------------------------|-------------------------|
| A 20 | B They are equal |
| C You cannot tell | D 31 |
-

- 4 What number comes just before 62?

- | | |
|-------------|-------------|
| A 63 | B 61 |
| C 60 | D 52 |
-

- 5 Which number is between 23 and 25?

- | | |
|-------------|-------------|
| A 24 | B 22 |
| C 26 | D 35 |
-

- 6 Is 8 even or odd?



- | | |
|---------------|------------------|
| A odd | B both |
| C even | D neither |
-

7 What number comes next? 2, 4, 6, 8, ____

A 9

B 10

C 12

D 16

8 What is 10 more than 47?

A 48

B 37

C 470

D 57

9 Which shows the numbers in order from least to greatest?

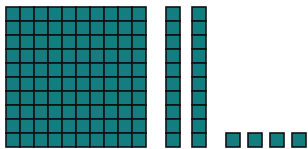
A 93, 51, 33

B 51, 33, 93

C 33, 51, 93

D 33, 93, 51

10 What number do the blocks show?



A 124

B 142

C 214

D 7

11 What is the value of the 5 in 352?

A 5

B 500

C 2

D 50

12 Which is the same as 352?

A $3 + 5 + 2$

B $300 + 50 + 2$

C $30 + 50 + 2$

D $300 + 5 + 2$

13 Which number is odd?

A 17

B 12

C 20

D 38

14 What number comes next? 35, 40, 45, ____

A 46

B 55

C 50

D 40

15 What is 10 less than 100?

A 99

B 90

C 10

D 110

16 How many tens are in 100?

A 100

B 1

C 5

D 10

17 Which number has 6 tens and 2 ones?

A 26

B 602

C 8

D 62

18 Which is the smallest number: 93, 51, or 33?

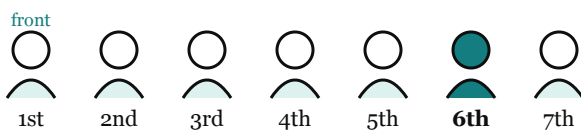
A 51

B 33

C 93

D They are all the same

19 7 children stand in a line. Counting from the front, which position is 5 places behind the very first child?



A sixth

B fifth

C seventh

D fourth

20 Which number is seventy-four?

A 47

B 704

C 74

D 714

21 A number has 4 tens and 12 ones. What is the number?

A 412

B 52

C 42

D 16

22 Which even number is between 68 and 72?

A 69

B 71

C 73

D 70

23 What is the largest two-digit even number?

A 99

B 100

C 98

D 90

24 Mia has 3 hundreds, 0 tens, and 7 ones. Ben has 2 hundreds, 9 tens, and 9 ones. Who has the bigger number?

A Mia, with 307

B Ben, with 299

C Mia, with 37

D They are equal

ANSWER KEY & EXPLANATIONS

- 1 C** 2 tens and 3 ones make 23.
-
- 2 A** 46 is 4 tens and 6 ones. The tens digit is 4.
-
- 3 D** 3 tens is more than 2 tens, so 31 is greater.
-
- 4 B** Counting up: 61, 62. So 61 is just before 62.
-
- 5 A** 23, 24, 25. The number in the middle is 24.
-
- 6 C** All 8 dots have a partner. 8 is even.
-
- 7 B** Counting by 2s: after 8 comes 10.
-
- 8 D** Add 1 to the tens digit: $47 + 10 = 57$.
-
- 9 C** Smallest tens first: 33 (3 tens), 51 (5 tens), 93 (9 tens).
-
- 10 A** 1 hundred, 2 tens, 4 ones = 124.
-
- 11 D** The 5 is in the tens place, so it is worth 5 tens = 50.
-
- 12 B** 3 hundreds, 5 tens, 2 ones: $300 + 50 + 2$.
-
- 13 A** Odd numbers end in 1, 3, 5, 7, or 9. 17 ends in 7.
-
- 14 C** Counting by 5s: $45 + 5 = 50$.
-
- 15 B** $100 - 10 = 90$.
-
- 16 D** 10 tens make 100.
-
- 17 D** 6 tens is 60, plus 2 ones is 62.
-
- 18 B** 3 tens is the fewest tens, so 33 is smallest.
-
- 19 A** First, then 5 more places: second, third, fourth, fifth, sixth.
-
- 20 C** Seventy is 70, and four more makes 74.
-
- 21 B** 12 ones is 1 ten and 2 ones. So 5 tens and 2 ones: 52.
-
- 22 D** 69, 70, 71 are between. Only 70 is even.
-
- 23 C** 99 is the largest two-digit number, but it is odd. 98 is even.
-
- 24 A** Mia: 307. Ben: 299. 3 hundreds beats 2 hundreds, so Mia.
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