

SIGMABUDGIE · GRADE 2

Time & Measurement

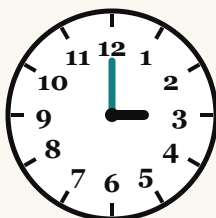
A gentle walkthrough & a 24-question exam

Part 1 walks through telling time and measuring length 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 · O'clock

The **short** hand is the hour hand. The **long** hand is the minute hand.

When the long hand points straight up at 12, it is **o'clock**. The short hand tells which hour: here it points at 3, so it is **3 o'clock**, written 3:00.



3:00

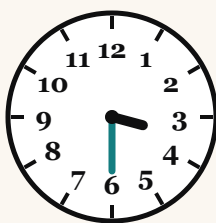


8:00

2 · Half past

When the long hand points down at 6, half an hour has gone by: **half past**. That is 30 minutes.

The short hand is halfway between 3 and 4, so it is half past 3, written **3:30**.



3:30, half past 3

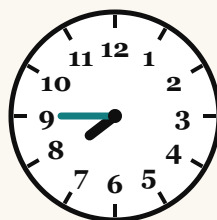
3 · Quarter past and quarter to

Long hand on 3: a quarter of the way around. **Quarter past 7** is 7:15.

Long hand on 9: three quarters around, one quarter left to go. **Quarter to 8** is 7:45. The short hand is almost at 8.



7:15, quarter past 7



7:45, quarter to 8

4 • Counting by fives

Each number on the clock is **5 minutes** for the long hand. Count by fives from the 12: 5, 10, 15, 20...

Long hand on 4: 5, 10, 15, **20**. Short hand past 7. The time is **7:20**.



7:20

5 • Morning and afternoon

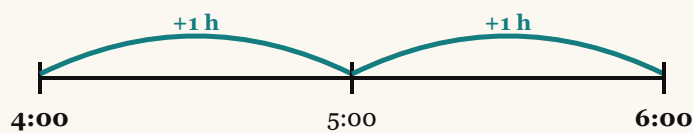
The clock goes around twice each day. Morning times are **a.m.** Afternoon and evening times are **p.m.**

You eat breakfast at 7:30 **a.m.** and go to bed at 7:30 **p.m.** Same numbers, different halves of the day.

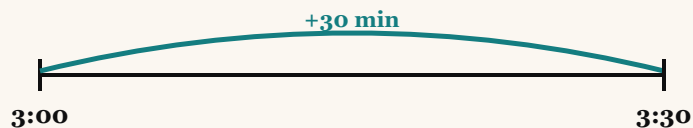
6 • What time will it be?

It is 4:00 now. In 2 hours, the short hand moves 2 numbers: **6:00**.

It is 3:00 now. In half an hour, the long hand moves to the 6: **3:30**.



$4:00 + 2 \text{ hours} = 6:00$

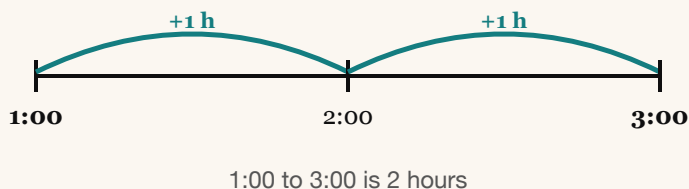


$3:00 + \text{half an hour} = 3:30$

7 • How long did it take?

A movie starts at 1:00 and ends at 3:00. Count the hours from 1 to 3: $1 \rightarrow 2 \rightarrow 3$ is **2 hours**.

Lunch starts at 12:00 and ends at 12:30. That is **half an hour**, 30 minutes.



8 • Days, weeks, months

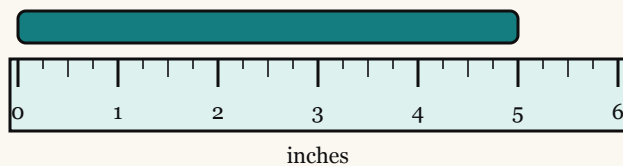
There are **7 days** in a week: Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday. Then it starts again.

There are **12 months** in a year, and **60 minutes** in an hour. If today is Tuesday, in 2 days it will be **Thursday**.

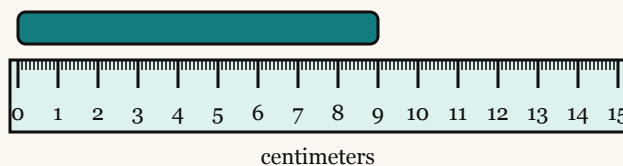
9 • Measuring with a ruler

Put the **0** of the ruler at one end of the thing. Read the number at the other end. This pencil is **5 inches** long.

A ruler can also show **centimeters** (cm), which are smaller than inches. This crayon is **9 cm**.



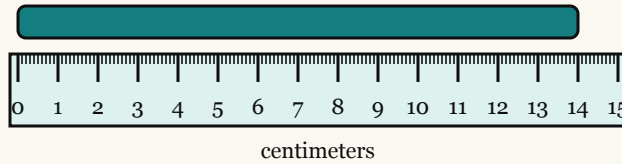
5 inches



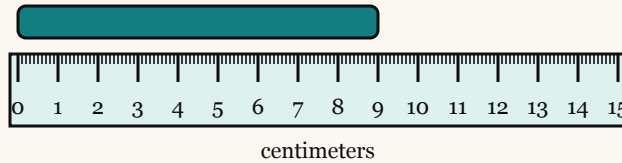
9 centimeters

10 • Which is longer, and by how much?

A pencil is 14 cm and a crayon is 9 cm. The pencil is longer. **How much longer?** Subtract: $14 - 9 = 5$ cm.



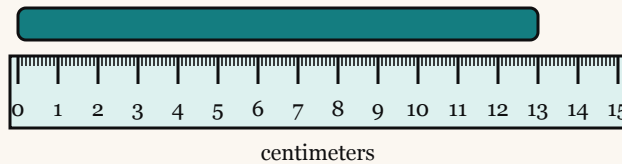
14 cm



9 cm, so 5 cm shorter

11 • End to end

Put a 7 cm ribbon and a 6 cm ribbon end to end. Together they are $7 + 6 = 13$ cm. Lengths add up.



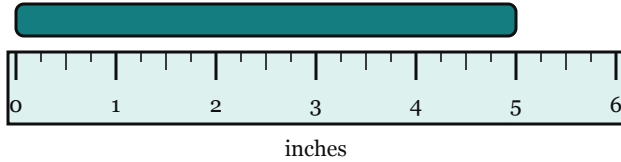
7 cm + 6 cm = 13 cm

12 • Picking a unit

Small things: **centimeters** or **inches** (a crayon, a book). Big things: **meters** or **feet** (a room, a tree). Very far: **kilometers** or **miles**.

Measure a paper clip in cm, a door in feet, a road in miles. You are ready for the test! 🎉

5 How long is the pencil?



A 6 inches

B 4 inches

C 5 inches

D 5 cm

6 How many minutes are in one hour?

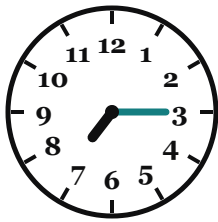
A 60

B 100

C 30

D 12

7 What time does the clock show?



A 3:35

B 7:03

C 7:45

D 7:15

8 It is 3:00 now. What time will it be in half an hour?

A 4:00

B 3:30

C 3:50

D 2:30

9 A ribbon is 7 cm long. Another is 6 cm long. Placed end to end, how long are they together?

A 13 cm

B 1 cm

C 12 cm

D 76 cm

- 10 What time does the clock show?



- A 7:04 B 4:35
C 7:20 D 8:20
-

- 11 A pencil is 14 cm long and a crayon is 9 cm long. How much longer is the pencil?

- A 23 cm B 5 cm
C 4 cm D 6 cm
-

- 12 Which time is in the morning?

- A 8:00 p.m. B 3:00 p.m.
C 9:30 p.m. D 8:00 a.m.
-

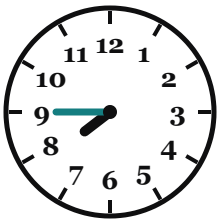
- 13 Which unit is best for measuring a crayon?

- A meters B miles
C centimeters D kilometers
-

- 14 Today is Tuesday. What day will it be in 2 days?

- A Thursday B Wednesday
C Friday D Sunday
-

- 15 What time does the clock show?



- A 8:45 B 9:35
C 7:09 D 7:45
-

16 A movie starts at 1:00 and ends at 3:00. How long is the movie?

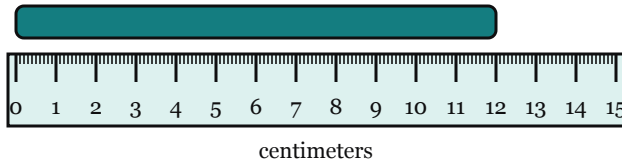
A 3 hours

B 2 hours

C 1 hour

D 4 hours

17 How long is the bar?



A 13 cm

B 12 cm

C 12 inches

D 11 cm

18 It is 11:00 now. What time will it be in 3 hours?

A 14:00

B 1:00

C 3:00

D 2:00

19 Which is the longest?

A a rope that is 1 meter

B a pencil that is 15 cm

C a book that is 30 cm

D a shoe that is 20 cm

20 How many months are in a year?

A 7

B 10

C 12

D 52

21 Soccer starts at 10:30 and lasts 1 hour. What time does it end?

A 11:00

B 10:60

C 12:30

D 11:30

22 A ribbon is 16 cm long. Another is 9 cm long. Placed end to end, how long are they together?

A 7 cm

B 25 cm

C 24 cm

D 15 cm

23 Quarter to 5 is the same as which time?

A 5:15

B 5:45

C 4:45

D 4:15

24 Lunch starts at 12:00 and ends at 12:30. Recess starts at 12:30 and ends at 1:00. How long are lunch and recess together?

A 1 hour

B 30 minutes

C 2 hours

D 1 hour 30 minutes

ANSWER KEY & EXPLANATIONS

- 1 **A** Long hand on 12, short hand on 3: 3 o'clock.
- 2 **C** Long hand on 6 means half past. The short hand is between 8 and 9, so 8:30.
- 3 **B** Sunday through Saturday: 7 days.
- 4 **D** $4 + 2 = 6$, so 6:00.
- 5 **C** It starts at 0 and ends at 5 on the inch ruler.
- 6 **A** One hour is 60 minutes.
- 7 **D** Long hand on 3 is quarter past (15 minutes). Short hand just past 7: 7:15.
- 8 **B** Half an hour is 30 minutes: 3:30.
- 9 **A** Lengths add up: $7 + 6 = 13$ cm.
- 10 **C** Count by fives to the 4: 5, 10, 15, 20. Short hand past 7: 7:20.
- 11 **B** How much longer means subtract: $14 - 9 = 5$ cm.
- 12 **D** Morning times are a.m.
- 13 **C** A crayon is small, so use centimeters (or inches).
- 14 **A** Tuesday → Wednesday → Thursday.
- 15 **D** Long hand on 9 is 45 minutes. The short hand is almost at 8 but not there yet, so the hour is still 7.
- 16 **B** From 1 to 2 is one hour, from 2 to 3 is another: 2 hours.
- 17 **B** It starts at 0 and ends at 12 on the centimeter ruler.
- 18 **D** $11 \rightarrow 12 \rightarrow 1 \rightarrow 2$. After 12 the clock starts again at 1.
- 19 **A** 1 meter is 100 cm, longer than 15, 30, or 20 cm.
- 20 **C** A year has 12 months.
- 21 **D** One hour after 10:30 is 11:30.
- 22 **B** $16 + 9 = 25$ cm.
- 23 **C** Quarter to 5 means 15 minutes before 5:00, which is 4:45.
- 24 **A** Lunch is 30 minutes and recess is 30 minutes. $30 + 30 = 60$ minutes = 1 hour.