

CLOCK DETECTIVE

The Case of the Mysterious Moving Hands



Special Agent: Penelope

Your mission: learn to read a real clock — hands and all.

Meet the Clock

Every detective needs to know the suspect.

LEARN

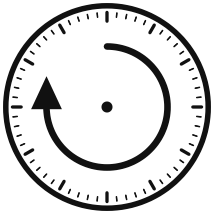


The **little marks** around the edge count **minutes**. There are 60 of them!

The **short hand** is the **hour hand**. It tells you the hour. On this clock it points at the 9.

The **long hand** is the **minute hand**. It tells you the minutes. Here it points straight up at the 12.

This clock shows **9 o'clock**.



The hands always travel the same direction — we call it **clockwise**. Trace the arrow with your finger.

- 1** Circle the **hour hand** on each clock. (Hint: it's the short one!)



- 2** Finish the sentences with **hour** or **minute**.

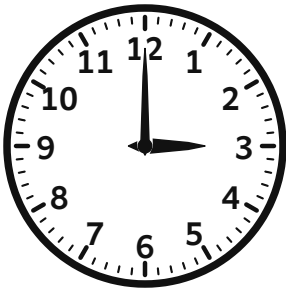
The short hand is the _____ hand. The long hand is the _____ hand.

- 3** The minute hand takes **5 minutes** to travel from one number to the next. How many minutes does it take to get from the 12 all the way to the 2? Count: 5, then...

O'Clock Times

The easiest case in the book.

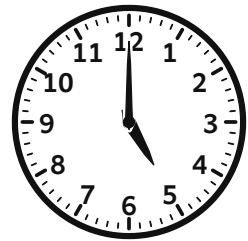
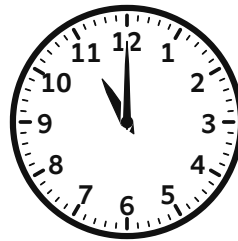
LEARN



When the **minute hand points straight up at the 12**, the time is exactly **something o'clock**.

Then the **hour hand** tells you which one. Here it points at the **3**, so it's **3 o'clock** — written **3:00**.

- 1 Write the missing number, then write the time in digits.



_____ o'clock

	:	
--	---	--

_____ o'clock

	:	
--	---	--

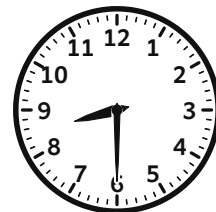
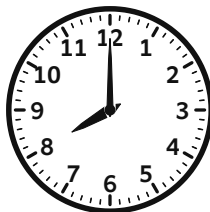
_____ o'clock

	:	
--	---	--

_____ o'clock

	:	
--	---	--

- 2 One of these clocks shows **8 o'clock**. Circle it — and don't get tricked!



Half Past

The minute hand's halfway trip.

LEARN



When the **minute hand points straight down at the 6**, it has traveled **half** way around. We say **half past**.

Look closely at the hour hand: it's **halfway between the 4 and the 5**, because half the hour is gone. The hour is still **4** until the hand reaches 5.

The minute hand has passed **30** of the 60 little marks — half of 60! So we write it **4:30** and say **half past 4**.

1 Write each time two ways.



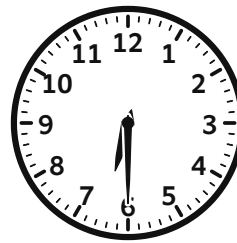
half past _____

	:	
--	---	--



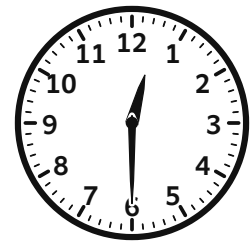
half past _____

	:	
--	---	--



half past _____

	:	
--	---	--

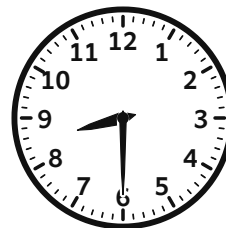


half past _____

	:	
--	---	--

Detective note: on the last clock the hour hand sits between the 12 and the 1. Which number did it pass most recently? That's your hour!

2 One of these clocks is **broken**! Both say half past 8 — but on a real clock, where should the hour hand be at half past? Circle the clock that's telling the truth.



The Sneaky Hour Hand

The most important secret in this whole book.

LEARN

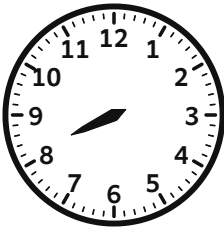


Here's the secret: the hour hand doesn't jump from number to number. It **creeps**. All hour long, it slides slowly toward the next number.

This clock only shows its hour hand. It's almost at the 8... but it hasn't gotten there. So the hour is **still 7**.

Rule: the hour is the number the hand **passed last**, not the one it's creeping toward.

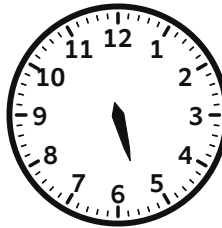
- 1 These clocks show only their hour hands. Circle the best description.



just past 8

almost 8

just past 10



exactly 5

halfway between 5 and 6

halfway between 6 and 7



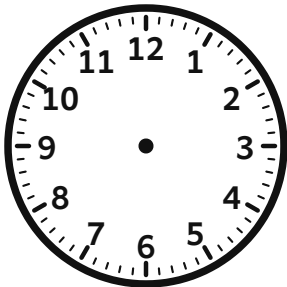
just past 2

almost 3

just past 3

- 2 Look back at the LEARN clock at the top of the page. Its hour hand is almost touching the 8 — but has it arrived? So the hour is... _____

- 3 Your turn: draw a **short** hour hand pointing exactly halfway between the 3 and the 4. What time could it be?



half past _____

Counting the Minutes

Every number is secretly worth 5.

LEARN

The minute hand takes **5 minutes** to travel between numbers. So every clock number has a **secret minute number**: the 1 means 5 minutes, the 2 means 10 minutes, the 3 means 15... all the way to the 12, which means 60 — a whole hour!

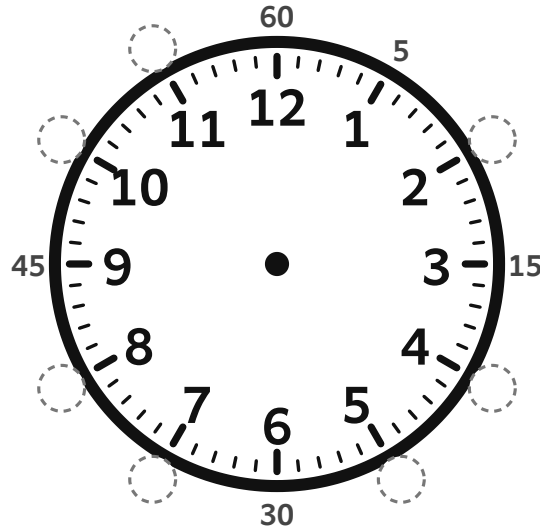
To read minutes, just **count by 5s** around the clock: 5, 10, 15, 20, 25, 30...

And when the minute hand points back up at the **12**, the minutes start over at **zero** — that's the o'clock moment!

- 1 Warm up those 5s! Fill in the missing numbers.

5	10		20		30			45	50		60
---	----	--	----	--	----	--	--	----	----	--	----

- 2 This clock's secret minute numbers are fading away. Write the missing ones in the dashed circles.



- 3 The minute hand points at the 7. Count by 5s... how many minutes is that?

Reading Any Time

Put your two clues together.

THE METHOD



Step 1. Read the **hour hand**: which number did it pass last?

Here it's past the 8 — the hour is 8.

Step 2. Read the **minute hand**: count by 5s to where it points. 5, 10, 15, 20 — that's 20 minutes.

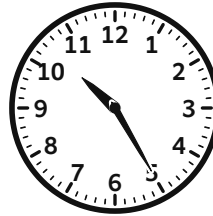
Step 3. Put them together: 8:20.

When the minutes are less than 10, give them a **zero**

bodyguard: five minutes past 3 is written 3:05, never 3:5.

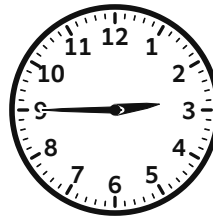
1 Use the three steps. Write each time.


 :

 :

 :

 :

 :

 :

 :

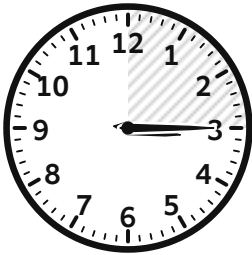
 :

watch out — tricky!

Quarter Past & Quarter To

Cutting the hour into four pieces.

LEARN



Minute hand at the 3: it has traveled a **quarter** of the way.

Quarter past 3 — 3:15



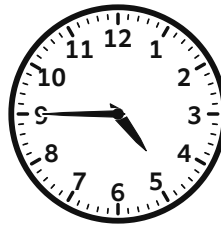
Minute hand at the 9: one quarter **left to go** before 4 o'clock.

Quarter to 4 — 3:45

15 minutes is a **quarter** of an hour — one fourth, like a quarter of a pizza.

Careful: “quarter to 4” still gets written with a 3, because the hour isn’t 4 yet!

- 1** Circle **past** or **to**, write the hour on the line, then write the digits.



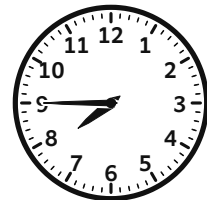
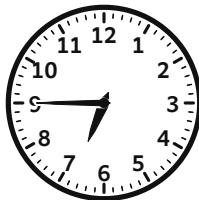
quarter past · to _____
 :

quarter past · to _____
 :

quarter past · to _____
 :

quarter past · to _____
 :

- 2** One of these clocks shows **quarter to 7**. Circle it. (Check both hands before you decide!)



You Draw the Hands

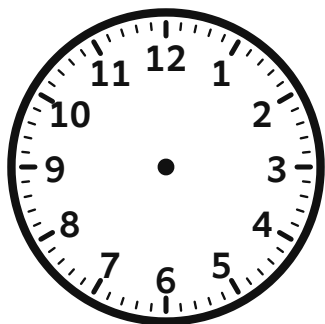
Now *YOU* control time.

REMEMBER

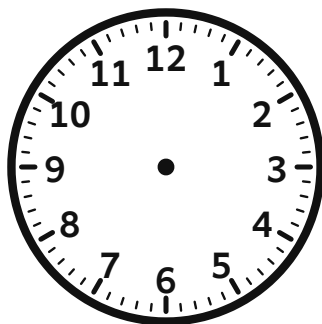
Hour hand: short. Minute hand: long. Draw them right from the center dot.

And place that sneaky hour hand carefully: at **:15** it has crept **just past** its number, at **half past** it's **halfway between** two numbers, and at **:45** or **:50** it's **almost touching** the next one!

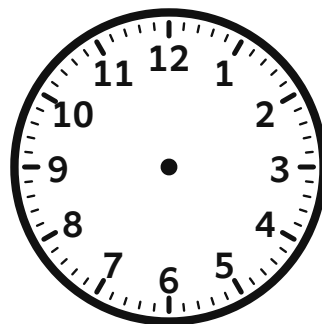
- 1 Draw both hands to show each time. Make the hour hand short and the minute hand long!



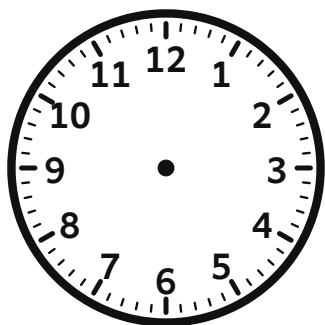
7:00



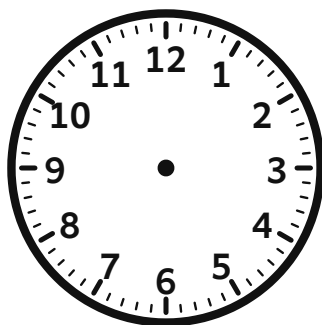
2:30



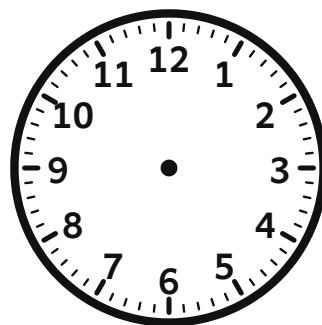
11:15



4:45



9:05



6:50

The Final Case

Mixed clues. A true detective handles anything.

- 1 Draw a line from each clock to its matching time. **Careful:** one time matches no clock at all!



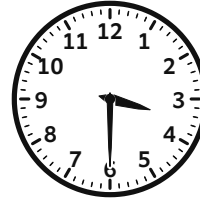
A O



B O



C O



D O



E O

O
3:30

O
12:05

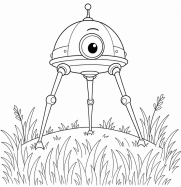
O
7:00

O
12:25

O
9:45

O
6:15

- 2 A friendly Martian scout was spotted at **quarter to seven**! Write that time in digits so headquarters can log it.



:

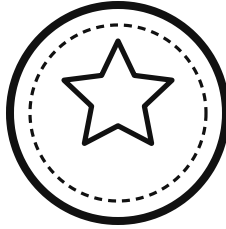
- 3 Penelope's skate session starts at **quarter past 4**. Circle the clock that shows it.



- 4 The case of the two clues: footprints were made at **half past 3**. A toy ray-gun was dropped at **quarter to 4**. Which clue happened first? _____

- 5 Brain-stretcher: a clock shows **3:00**. The minute hand travels all the way around, one full trip. What time is it now? _____

THE TIME BUREAU • OFFICIAL DOCUMENT



Clock Detective, First Class

This certifies that Special Agent

Penelope

has completed clock-reading training and may now be trusted
to report the correct time — anywhere, any time.

Date solved

Chief of the Time Bureau