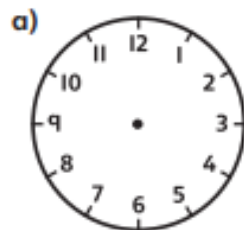
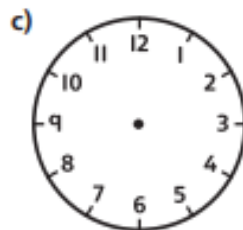


Estimating time

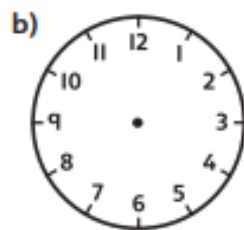
- 1 Draw the hour hand on each clock face.



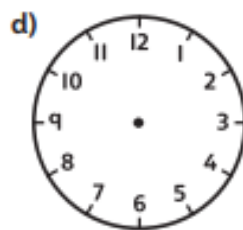
5 o'clock



quarter past 9



half past 11



quarter to 3

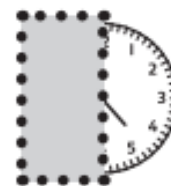
- 2 Draw where you estimate the minute hand will be on each clock. Write the time underneath.



- 3 The hour hand on a clock face is more than half-way between 11 and 12. Tick the times that it could be.

quarter to 12 ☐ quarter past 12 ☐ ten past 11 ☐
twenty-five to 12 ☐ half past 11 ☐ five to 12 ☐

- 4 Emma can only see half a clock face. She says, 'I can only see the hour hand, so I cannot estimate the time.' Is Emma right? Explain.



- 5 Work out how many minutes are shown on each clock by the movement of the hour hand. Use the fractions below each clock to help. Remember, there are 60 minutes in 1 hour.



$\frac{1}{4}$ of 1 hour =
 minutes



$\frac{1}{6}$ of 1 hour =
 minutes

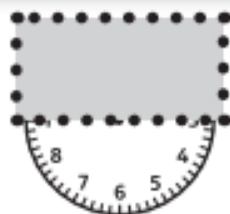


$\frac{1}{3}$ of 1 hour =
 minutes



$\frac{1}{3}$ of 1 hour =
 minutes

- 6 Lee can only see the bottom half of a clock face. Both the hands are hidden. He knows that the time is between 2 and 3 o'clock. What times could it be?







CHALLENGE

Reflect

Complete these sentences using what you have learnt during the lesson.

- If I know that the hour hand is half-way between two numbers,
- I know that
-
- If I know that the hour hand is between the 5 and the 6,
- I know that
-
- If I know that the hour hand is between the 2 and the 3, but is
- nearer to the 2, I know that
-
-

Answers:

1. a) 
5 o'clock
- b) 
half past 11
- c) 
quarter past 9
- d) 
quarter to 3

2. Approximate times:
8 o'clock (minute hand drawn pointing to 12)
Half past 2 (minute hand drawn pointing to 6)
Quarter to 7 (minute hand drawn pointing to 9)
3. Ticked: quarter to 12; twenty-five to 12; five to 12
4. Emma is not right as the hour hand moves during the hour; so if it is half past the hour then the hour hand would point half-way between the two numbers. As the hour hand on the clock is more than half-way between 4 and 5, the time must be after half past 4 but before 5 o'clock.
5. 30 minutes, 15 minutes, 45 minutes, 12 minutes
6. It could be any time between 2 o'clock and quarter past 2 or between quarter to 3 and 3 o'clock.

Reflect

I know that it is half past the hour.

I know that it is between 5 o'clock and 6 o'clock.

I know that it is between 2 o'clock and half past 2.

