

## CoEA Module 2

## Case Study 2

*Time*

The resources for this Case Study consist of

Teacher Notes

Introduction – Quiz

OHP1

OHP2

Worksheet WS1

OHP3

Worksheets WS2.1-2.2

Worksheet WS3

Resource Sheet 1

Homework Sheet HW1

Worksheet WS4

Test 1

*What is Time?*

*Clock Face*

*Clock Face (hours)*

*Clock Faces (1)*

*Clock Face (mins, secs)*

*Clock Faces (2)*

*Arithmetic Using Time*

*Peter's Day*

" "

*Different Measurements*

*Time*

# Case Study 2

## *Time*

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### Teacher Notes

1.
  - (a) Use the Introductory Sheet as a fun quiz to investigate the various meanings and uses of the word 'time'.
  - (b) Use OHP1, of a blank clockface. Fill in the numbers for the hours. (See OHP2)
  - (c) Students draw on the clock hands, showing whole hours (time o'clock).
  - (d) Discuss 'quarter past', 'quarter to' and 'half past'. Students draw hands on the clock to show different times.
  - (e) Worksheet 1 (a similar sheet could be made for homework).
  
2.
  - (a) Using OHP1, blank clockface, write in the minutes (5, 10, etc.). (See OHP3)
  - (b) Students draw on the clock hands, showing given times (twenty past, five to, etc.).
  - (c) Worksheet 2. Check understanding before moving on.
  - (d) Discuss 'seconds'. Have a clock showing seconds – 5, 10, etc.
  - (e) Simple additions with seconds. Use some that go past the minute (e.g. '30 seconds plus 40 seconds', giving answer as minute and seconds).
  - (g) Worksheet 3 and Homework Sheet 1 (using Resource Sheet 1).
  
3.
  - (a) Discuss various units of time. Ask questions similar to those on Worksheet 4. Do the first half of Worksheet 4.
  - (b) Discuss various units of length. Then ask questions similar to those on Worksheet 4. Do the second half of Worksheet 4.
  - (c) The practical element on measuring can be done at this point.

## Case Study 2, Introduction

### *What is Time?*

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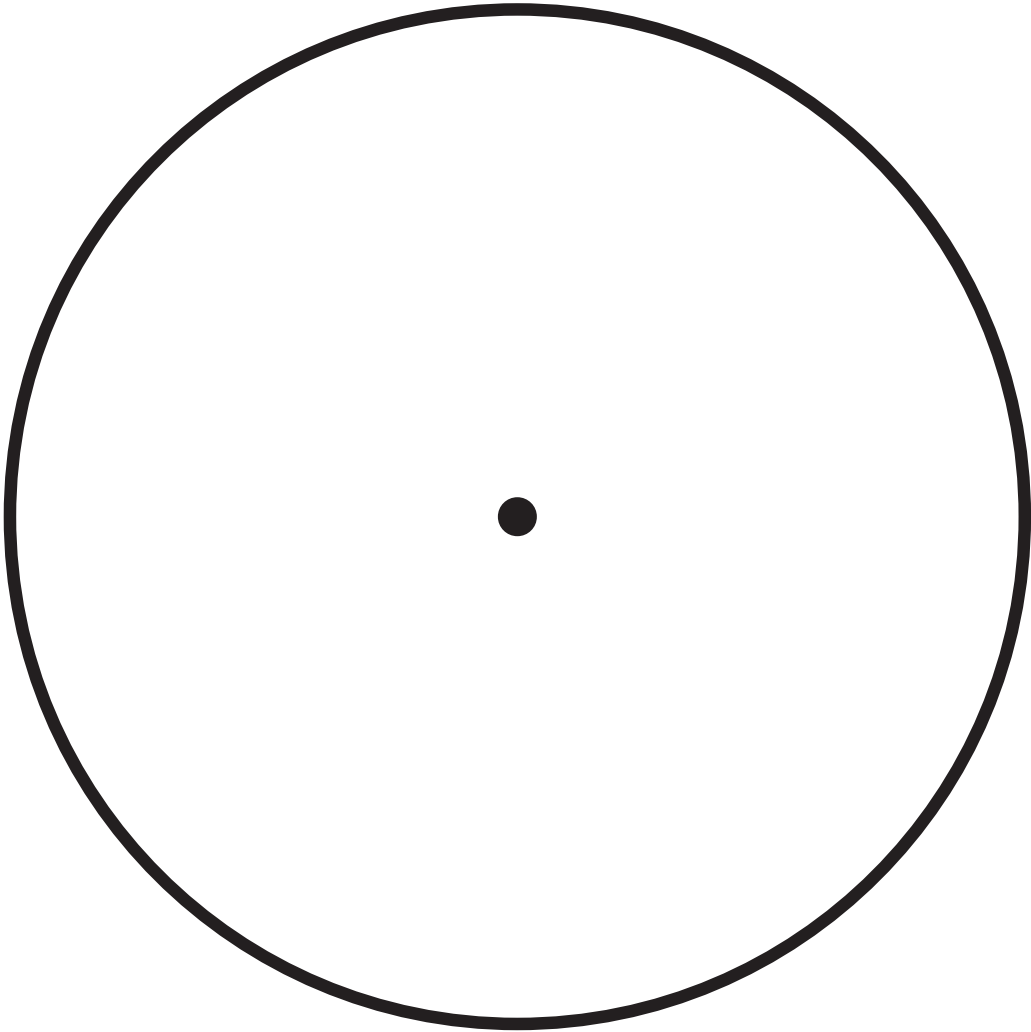
#### **Quiz**

1. What is a time *traveller*?
2. How do you *kill* time?
3. Where would you serve *time*?
4. What is a *pastime*?
5. What is a time *bomb*?
6. What is a *two* timer?
7. How do you take time *off*?
8. What is meant by *overtime*?
9. What is meant by *double* time?
10. What is meant by *part-time*?
11. How do you *make* time?
12. Who *beats* time?
13. Where would you see "*Once upon a time*"?
14. What is *half-time*?
15. What is time *out*?
16. What is a time *zone*?
17. What does time *sharing* mean?
18. What is a time *switch*?

# Case Study 2, OHP1

## *Clock Face*

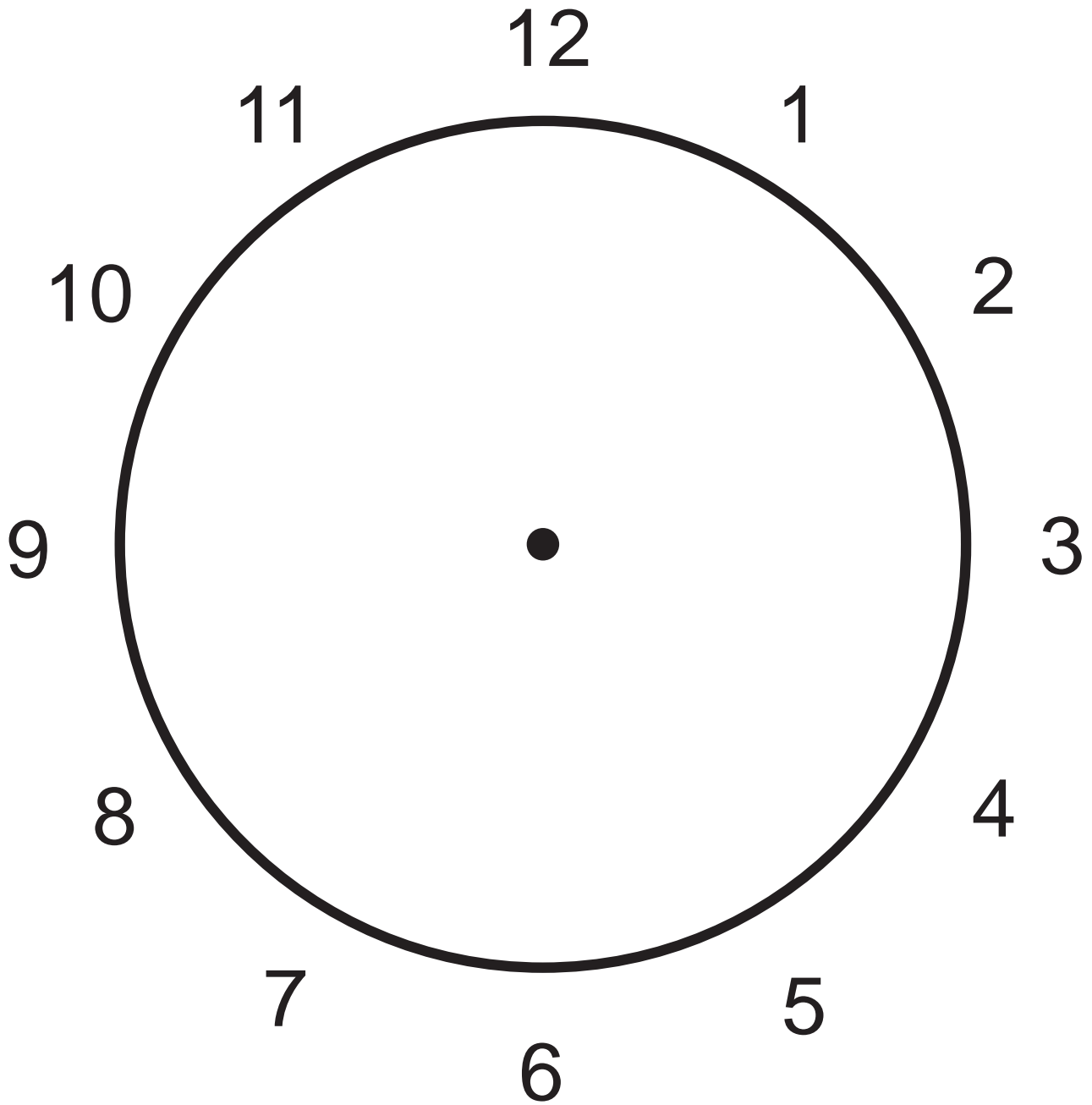
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# Case Study 2, OHP2

*Clock Face (hours)*

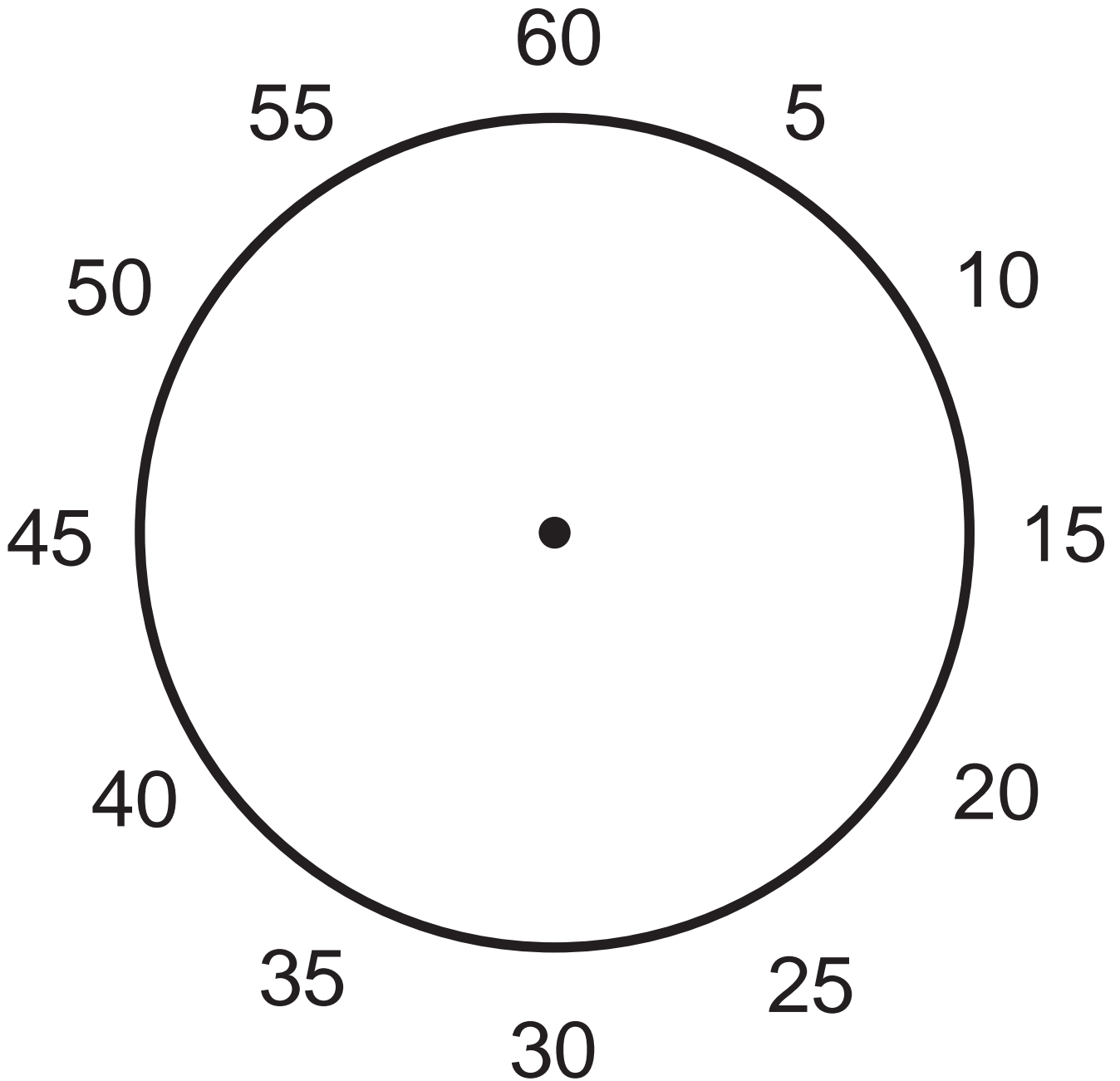
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# Case Study 2, OHP3

*Clock Face (mins, secs)*

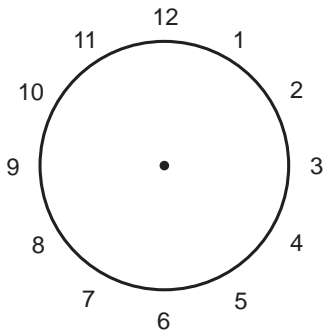
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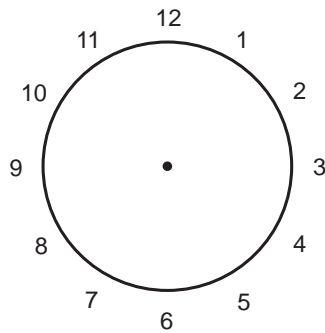
# Case Study 2, WS1

## *Clock Faces (1)*

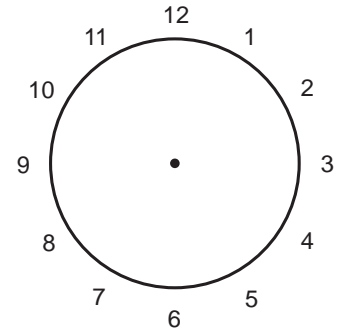
Draw in the hands on each clock to show the correct time.



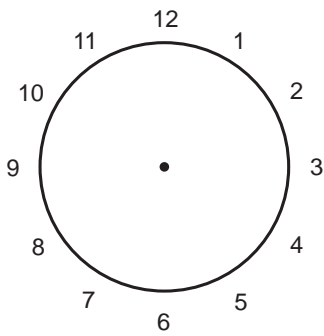
Three o'clock



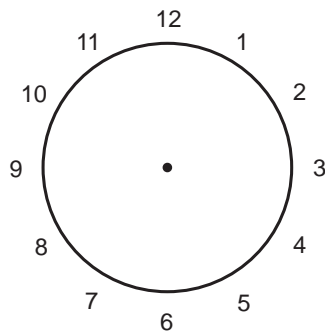
Seven o'clock



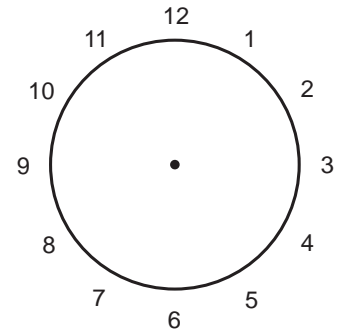
Eleven o'clock



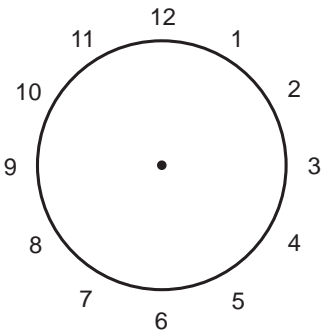
Half past seven



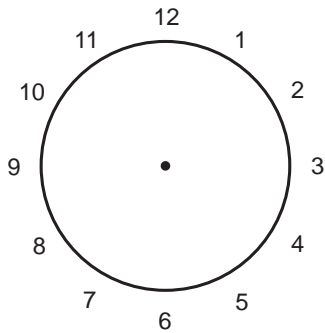
Half past twelve



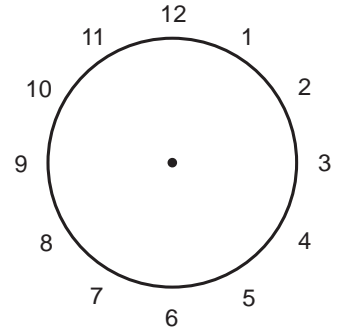
Half past three



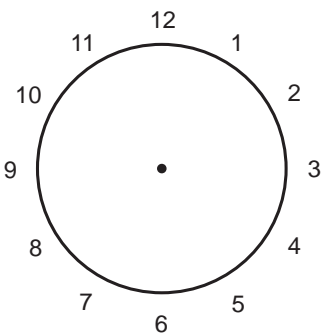
Quarter past five



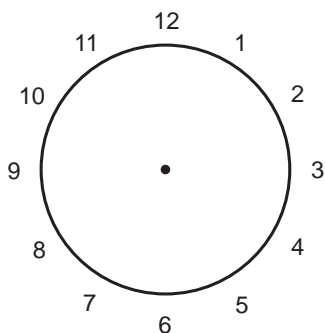
Quarter past eight



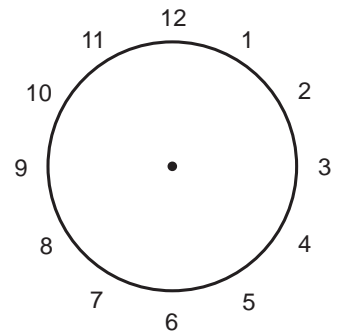
Quarter past one



Quarter to seven



Quarter to eight

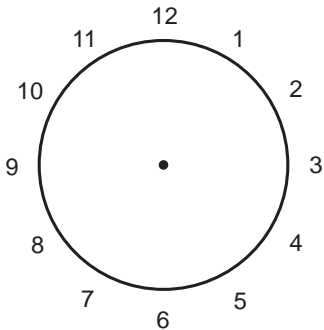


Quarter to three

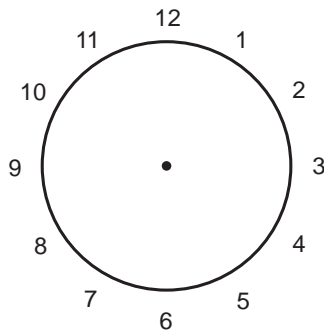
# Case Study 2, WS2.1

## *Clock Faces (2)*

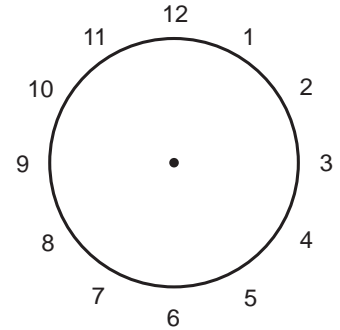
Draw in the hands on each clock to show the correct time.



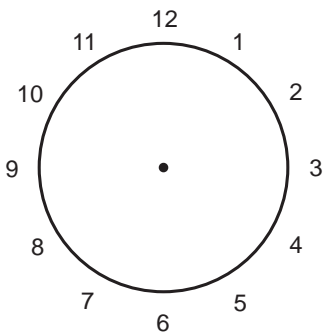
Ten to three



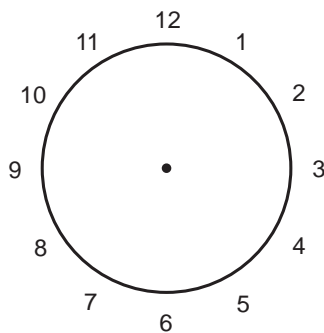
Five past six



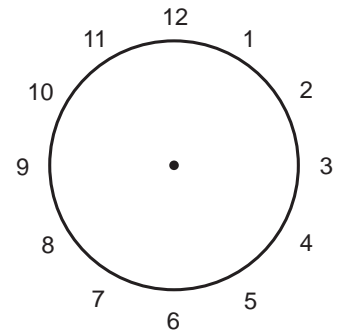
Twenty five to seven



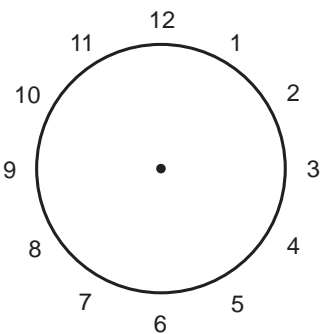
Twenty past four



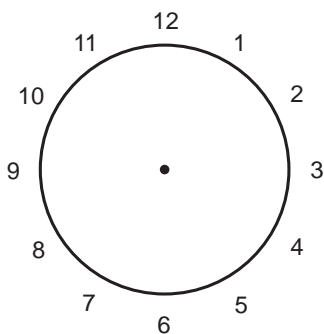
Five to eleven



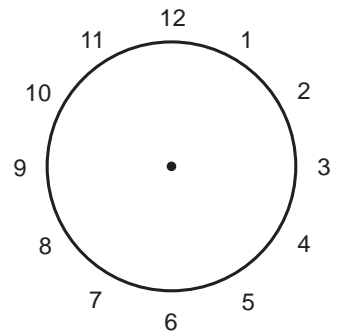
Twenty past midnight



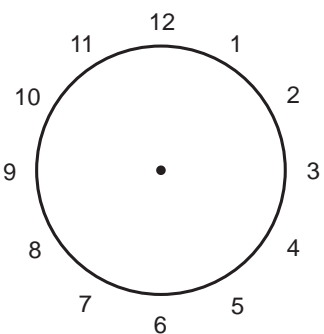
Twenty five to three



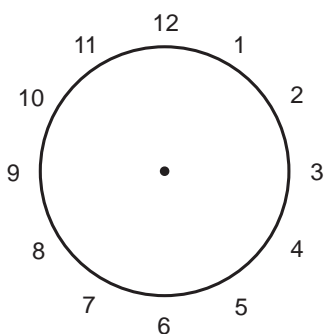
Twenty five past nine



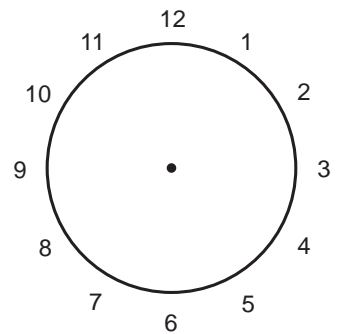
Five past six



Ten to one



Ten past seven

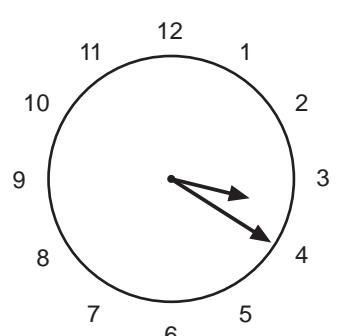
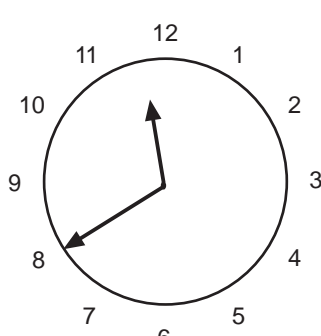
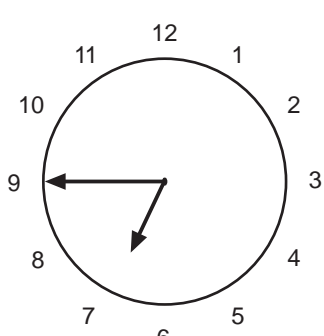
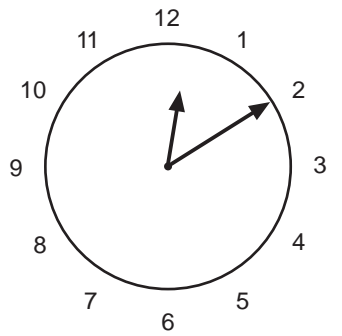
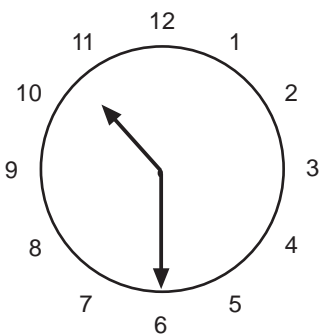
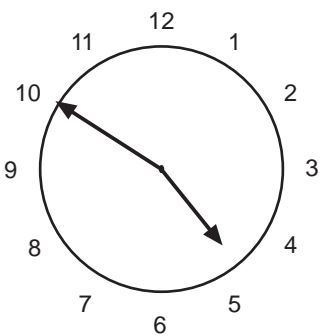
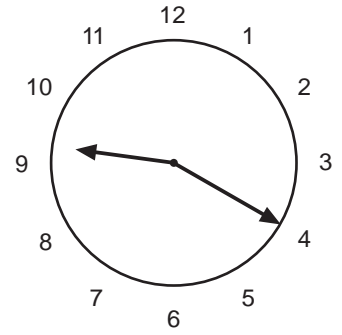
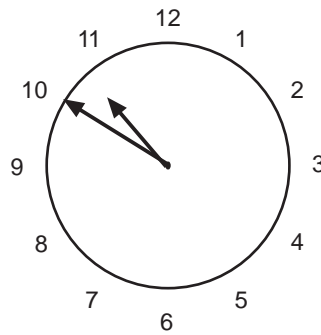
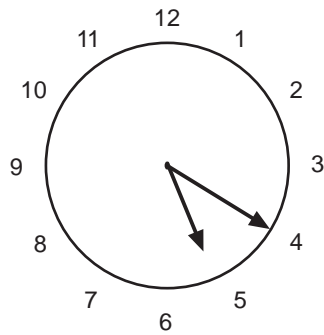
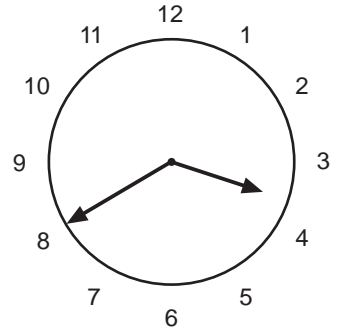
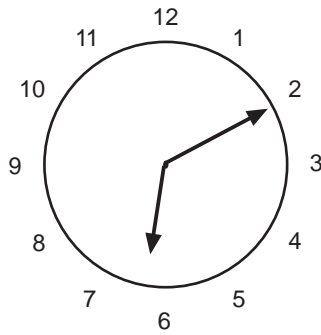
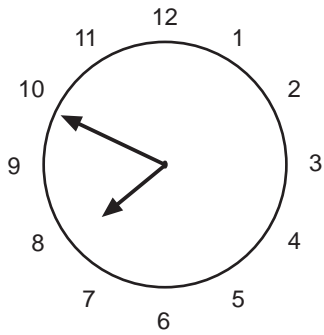


Twenty to five

# Case Study 2, WS2.2

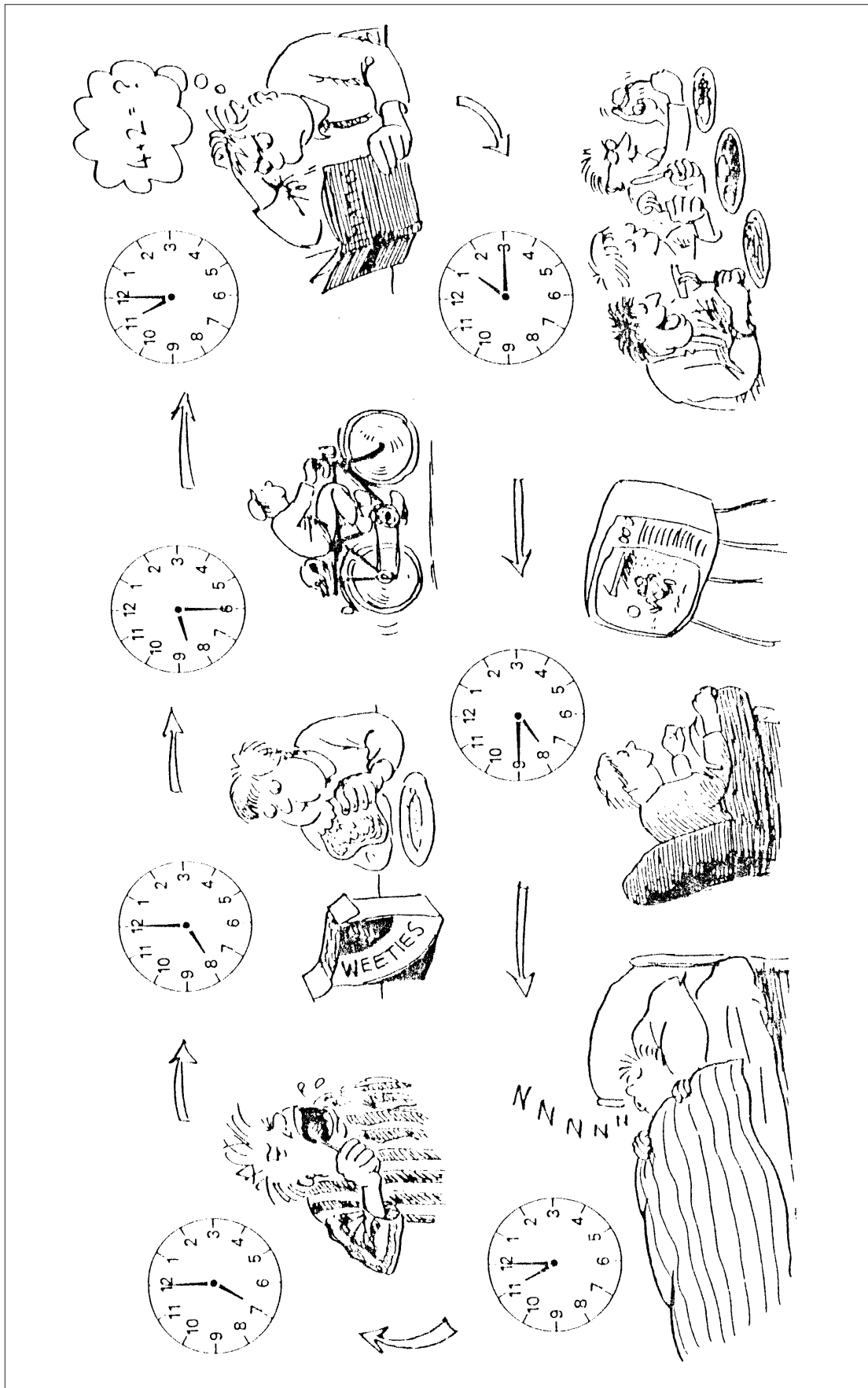
# Clock Faces (2)

Under each clock write the time shown.



# Case Study 2, Resource Sheet 1

## Peter's Day



# Case Study 2, HW1

## *Peter's Day*

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Use Resource Sheet 1, '*Peter's Day*', to answer these questions.

1. At what time is Peter riding to school? .....
2. At what time is Peter watching television? .....
3. When is Peter eating his breakfast? .....
4. At what time is Peter cleaning his teeth? .....
5. At what time is Peter eating his school dinner? .....
6. At what time is Peter sleeping? .....
7. At what time is Peter in a mathematics lesson? .....
8. When is Peter with his friends? .....
9. What is Peter doing at 7.45 in the evening? .....
10. What is Peter doing at 8.30 in the morning? .....
11. How long is it between Peter brushing his teeth and eating his breakfast? .....
12. How long is it between Peter eating his dinner and having a mathematics lesson? .....
13. How much time passes between Peter eating his breakfast and cycling to school? .....
14. How much time passes between Peter eating his breakfast and having his dinner? .....
15. How many hours pass between Peter's mathematics lesson and the time he falls asleep? .....

# Case Study 2, WS3

## *Arithmetic Using Time*

**1.** Work out the following:

- |                              |                              |
|------------------------------|------------------------------|
| (a) 10 mins + 15 mins =..... | (b) 5 mins + 15 mins = ..... |
| (c) 35 mins + 20 mins =..... | (d) 30 mins + 40 mins =..... |
| (e) 22 mins + 15 mins =..... | (f) 8 mins + 20 mins = ..... |
| (g) 25 mins + 45 mins =..... | (h) 37 mins + 42 mins =..... |
| (i) 26 mins + 57 mins =..... | (j) 12 mins + 51 mins =..... |
| (k) 42 mins + 53 mins =..... | (l) 59 mins + 47 mins =..... |

**2.** Work out the following:

- |                                    |                                    |
|------------------------------------|------------------------------------|
| (a) 15 mins + ..... = 45 mins      | (b) ..... + 40 mins = 55 mins      |
| (c) 40 mins + ..... = 1 hr 20 mins | (d) ..... + 35 mins = 1 hr 40 mins |
| (e) 29 mins + ..... = 46 mins      | (f) ..... + 13 mins = 47 mins      |
| (g) 8 mins + ..... = 53 mins       | (h) ..... + 51 mins = 1 hr 48 mins |
| (i) 27 mins + ..... = 1 hr 39 mins | (j) ..... + 34 mins = 1 hr 5 mins  |
| (k) 38 mins + ..... = 1 hr 15 mins | (l) 12 mins + ..... = 1 hr 32 mins |

**3.** Work out the following:

- |                               |                               |
|-------------------------------|-------------------------------|
| (a) 20 secs + 30 secs = ..... | (b) 15 secs + 25 secs = ..... |
| (c) 10 secs + 45 secs = ..... | (d) 20 secs + 20 secs = ..... |
| (e) 32 secs + 17 secs = ..... | (f) 36 secs + 41 secs = ..... |
| (g) 25 secs + 45 secs = ..... | (h) 42 secs + 29 secs = ..... |
| (i) 36 secs + 37 secs = ..... | (j) 17 secs + 52 secs = ..... |
| (k) 46 secs + 55 secs = ..... | (l) 58 secs + 49 secs = ..... |

## Case Study 2, WS4

## *Different Measurements*

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What basic unit of time would you use to measure each of the following?

You can choose from

*seconds, minutes, hours and days*

1. A 100 metre running race
2. A 1500 metre running race
3. Boiling an egg
4. A summer holiday to America
5. A marathon race
6. The length of time someone works during a week
7. A telephone conversation

What basic unit of length would you use to measure each of the following?

You can choose from

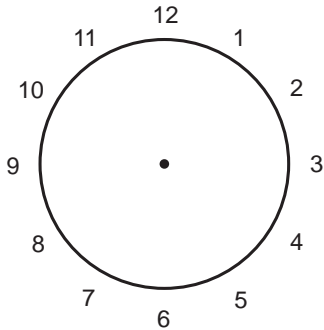
*millimetres, centimetres, metres and kilometres*

8. The length of a table top
9. A piece of hair
10. The distance from London to Norwich
11. The length of a drawing pin
12. The width of a football pitch
13. The Pennine Way – a walk through the Derbyshire hills!
14. A pencil

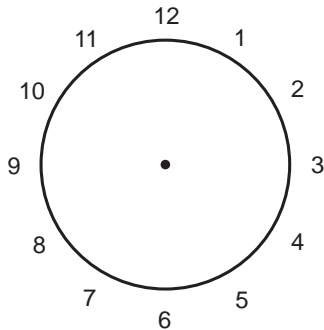
# Case Study 2, Test 1

## Time

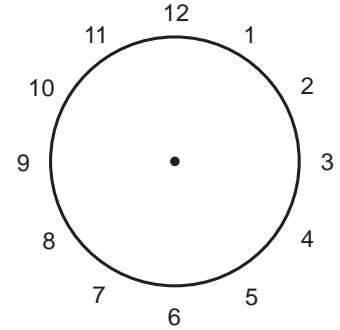
1. Draw the hands on the clocks to show the given time.



Half past eight



Twenty past two



Ten to five

2. Work out the following:

- |                               |                                     |
|-------------------------------|-------------------------------------|
| (a) 15 mins + 25 mins = ..... | (b) 23 mins + 18 mins = .....       |
| (c) 23 mins + 18 mins = ..... | (d) 53 mins + 28 mins = .....       |
| (e) ..... + 37 mins = 54 mins | (f) 47 mins + ..... = 1 hr 29 mins  |
| (g) 46 secs + 28 secs = ..... | (h) ..... + 45 secs = 1 min 23 secs |

3. Which of these basic units of time

*seconds, minutes, hours, days*

would you use to measure each of the following?

- (a) 100 metres swimming race
- (b) the time a football match lasts
- (c) the time of a train journey from London to Aberdeen.

4. Which of these basic units of length

*millimetres, centimetres, metres, kilometres*

would you use to measure each of the following?

- (a) the length of a fingernail
- (b) the length of a school corridor
- (c) the distance from Lands End in Cornwall to John O'Groats in Scotland.