



**ASDAN Functional Mathematics
January 2009**

**Level 2
Test Paper 2**

Candidate Question Paper

| | |
|------------------------|--------------------------|
| Centre Name: | Centre Number: |
| Candidate Name: | Candidate Number: |
| Date completed: | |

Instructions to Candidates

- You have 30 minutes to complete this paper.
- You may use a pen, pencil, eraser, ruler, mathematical drawing equipment and a calculator.
- Marks may be gained from all stages in your working, even if you use a calculator to help you answer a question.

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| Paper 2 – marks | | |
|------------------------|--------------------|------------------------|
| Task number | Total marks | Candidate marks |
| 1 | 8 | |
| 2 | 12 | |
| TOTAL MARKS | 20 | |



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Functional Mathematics Level 2

There are 2 parts to this assessment:

- | | |
|---|------------------|
| Paper 1 - A problem solving task | (Total 40 marks) |
| Paper 2 - Short questions to be answered on the paper | (Total 20 marks) |

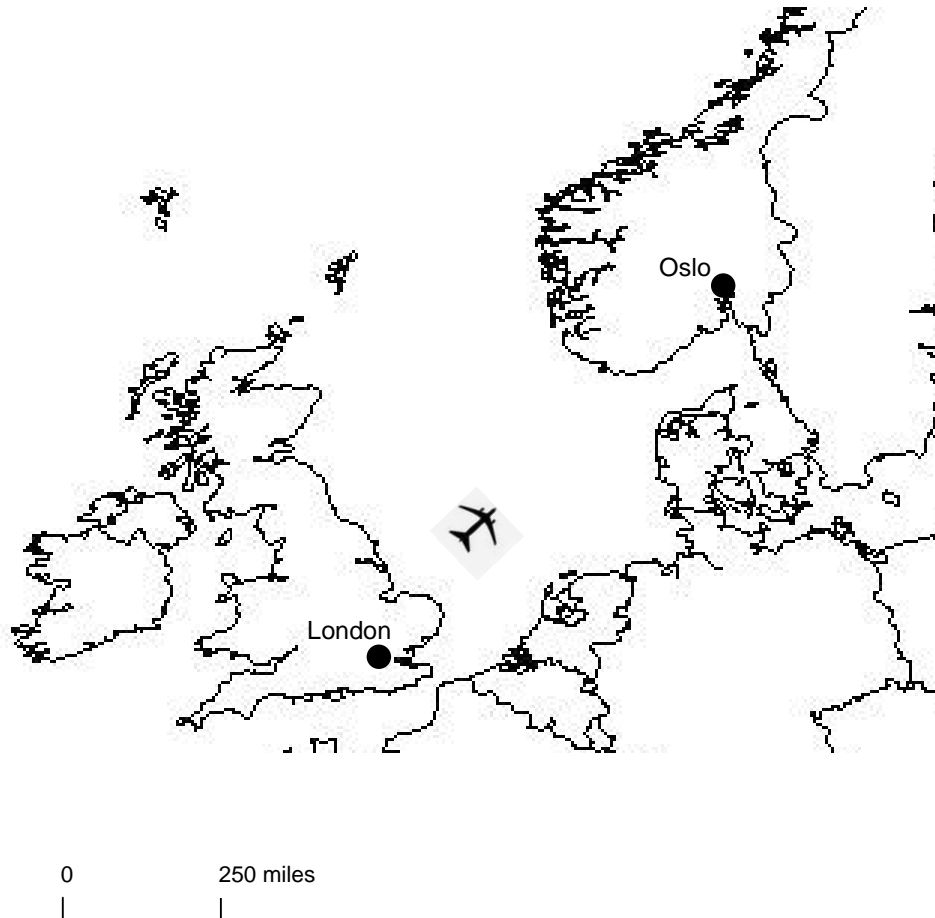
Both papers will be carried out under controlled conditions.

You must complete both parts of the assessment to gain your Functional Mathematics qualification at Level 2.

You have 1 hour 30 minutes to complete Paper 1 and 30 minutes to complete Paper 2.

Task 1 A holiday in Norway

Donna is travelling by plane to a holiday in Norway. During the flight she can see a map which shows where the plane is between take-off at London and Oslo, where she is to land.



- a) Approximately what fraction of the journey has the plane travelled from London? Use the 'nose' (front part) of the plane for this approximation.

Answer..... (1 mark)



- b) Later in the flight, Donna notices that the plane has travelled 700km and has been in the air for 45 minutes. How far does the plane travel in 1 hour?

Answer..... (2 marks)

- c) The plane took off from London at 0800 and is due to land in Oslo at 1100 local time. Oslo is 1 hour ahead of London time. How long is the flight due to take?

Answer..... (3 marks)

- d) Donna has taken £500 in local currency to Norway for her holiday. The exchange rate is £1 = 10.05 Norwegian Kroner. How many Kroner does she receive for her £500? Assume there is no charge for the currency exchange.

Answer..... (2 marks)

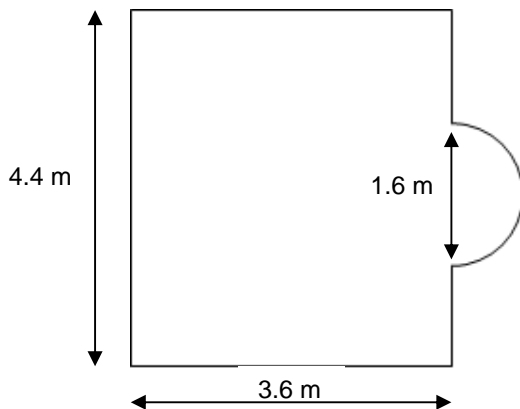
(Total: 8 marks)

End of Task 1.

Task 2

New floor covering

John has moved into a new flat and needs to put some new floor covering in the living room. He has a budget of £550 to use for this project and has decided to use wood laminate flooring. The diagram shows the measurements of the living room. This includes a semi-circular bay window.



Formula: Area of circle = πr^2 where r is the radius of a circle.

Laminate flooring is bought in packs. John would need to buy enough packs to cover the floor area of the room. A pack covers 1.67 m^2 and costs £54.52. John would be able to fit this himself.

- a) What area of floor needs to be covered?

Answer..... (5 marks)



b) How many packs of flooring are needed?

Answer..... (3 marks)

c) What is total cost of the laminate flooring?

Answer..... (2 marks)

d) Is John within his budget? How much money is left over or how much extra is needed?

Answer.....

.....

..... (2 marks)

(Total: 12 marks)

End of Task 2.



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