

Write your name here

Surname	Other names
---------	-------------

Pearson Edexcel
International
Advanced Level

Centre Number

--	--	--	--	--	--

Candidate Number

--	--	--	--

Decision Mathematics D1

Advanced/Advanced Subsidiary

Wednesday 22 January 2014 – Morning
Time: 1 hour 30 minutes

Paper Reference
WDM01/01

Answer Book

Do not return the question paper with the answer book.

Total Marks

--

Turn over ►

P43013A

©2014 Pearson Education Ltd.

5/5/5/5/5/



2.

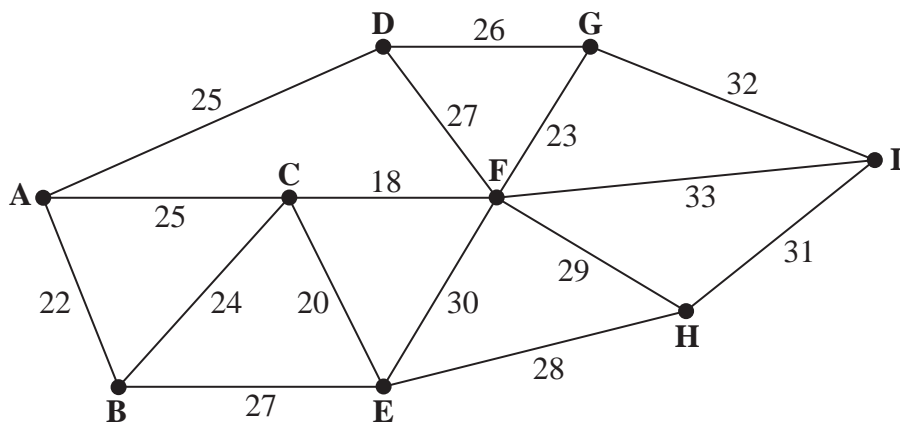


Figure 1

(a)

(b) Minimum cost: £ _____



Leave blank

Question 2 continued

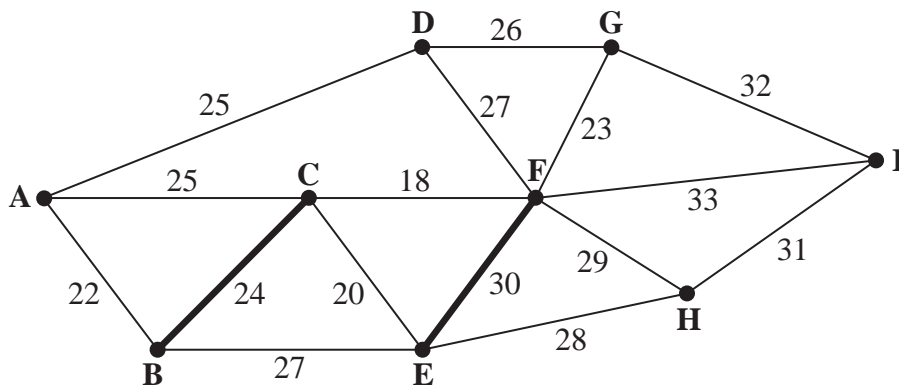


Diagram 1

(c) (i)

(c) (ii)

(d) New minimum cost: £ _____

(Total 10 marks)

Q2

--	--



Leave blank

3.

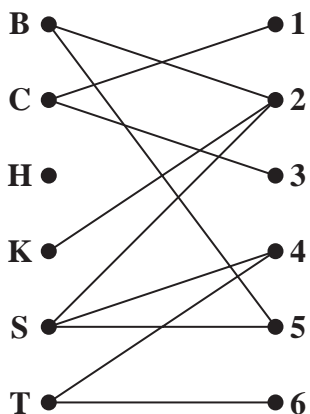


Figure 2

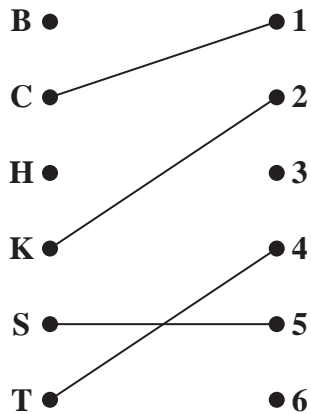


Figure 3



Question 3 continued

- | | | | |
|-----|----|-----|----|
| B ● | ●1 | B ● | ●1 |
| C ● | ●2 | C ● | ●2 |
| H ● | ●3 | H ● | ●3 |
| K ● | ●4 | K ● | ●4 |
| S ● | ●5 | S ● | ●5 |
| T ● | ●6 | T ● | ●6 |

(Total 8 marks)

Q3



4.

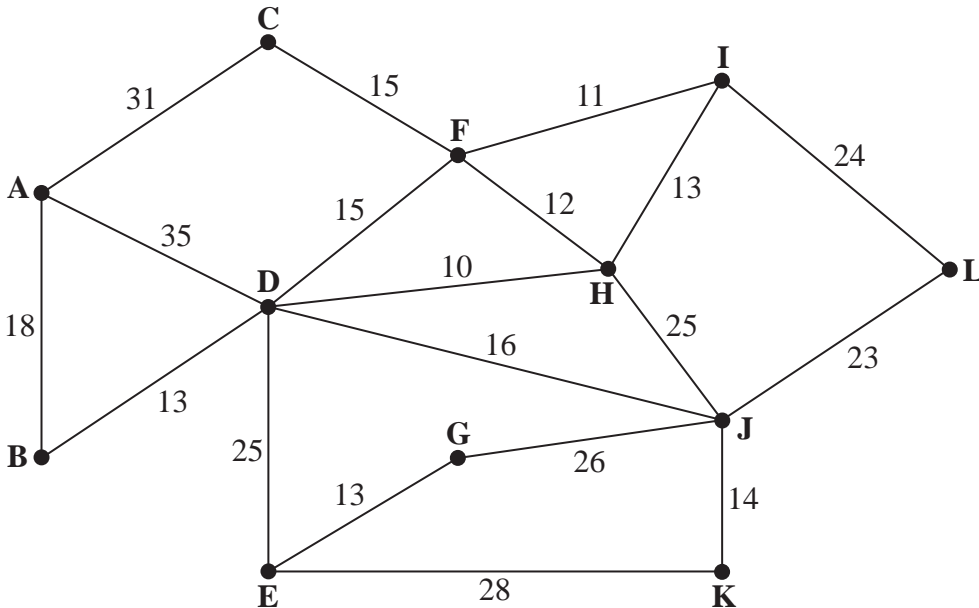


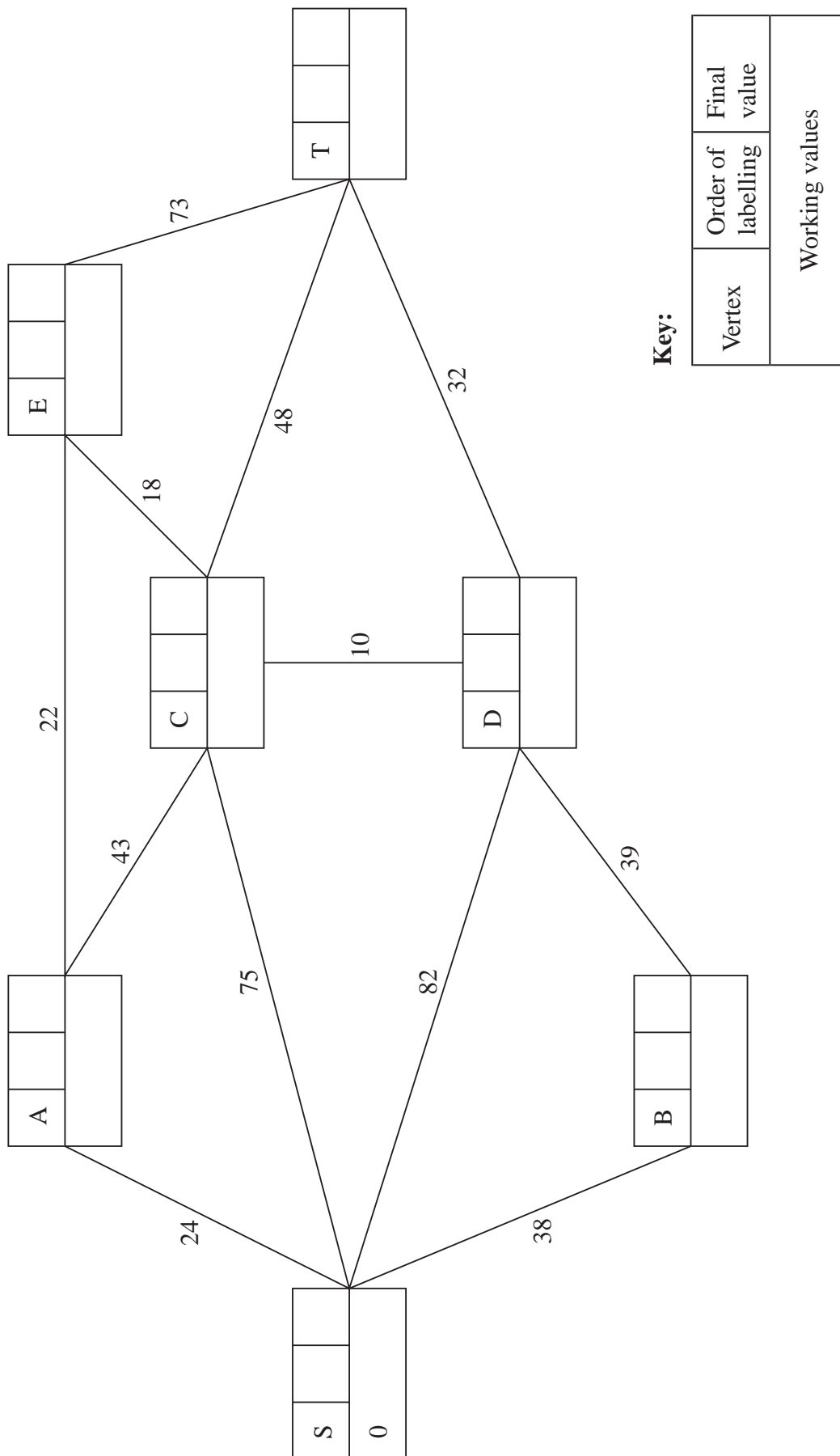
Figure 4

[The total weight of the network is 367 metres]



Leave blank

5. (a)



Key:

Vertex	Order of labelling	Final value
Working values		



Leave blank

Question 5 continued

Shortest route from S to T: _____

Length of shortest route from S to T: _____

(b)

First shortest route from S to T excluding arc CE: _____

Second shortest route from S to T excluding arc CE: _____

Length of shortest route from S to T excluding arc CE: _____

(Total 9 marks)

Q5



Leave
blank

6.

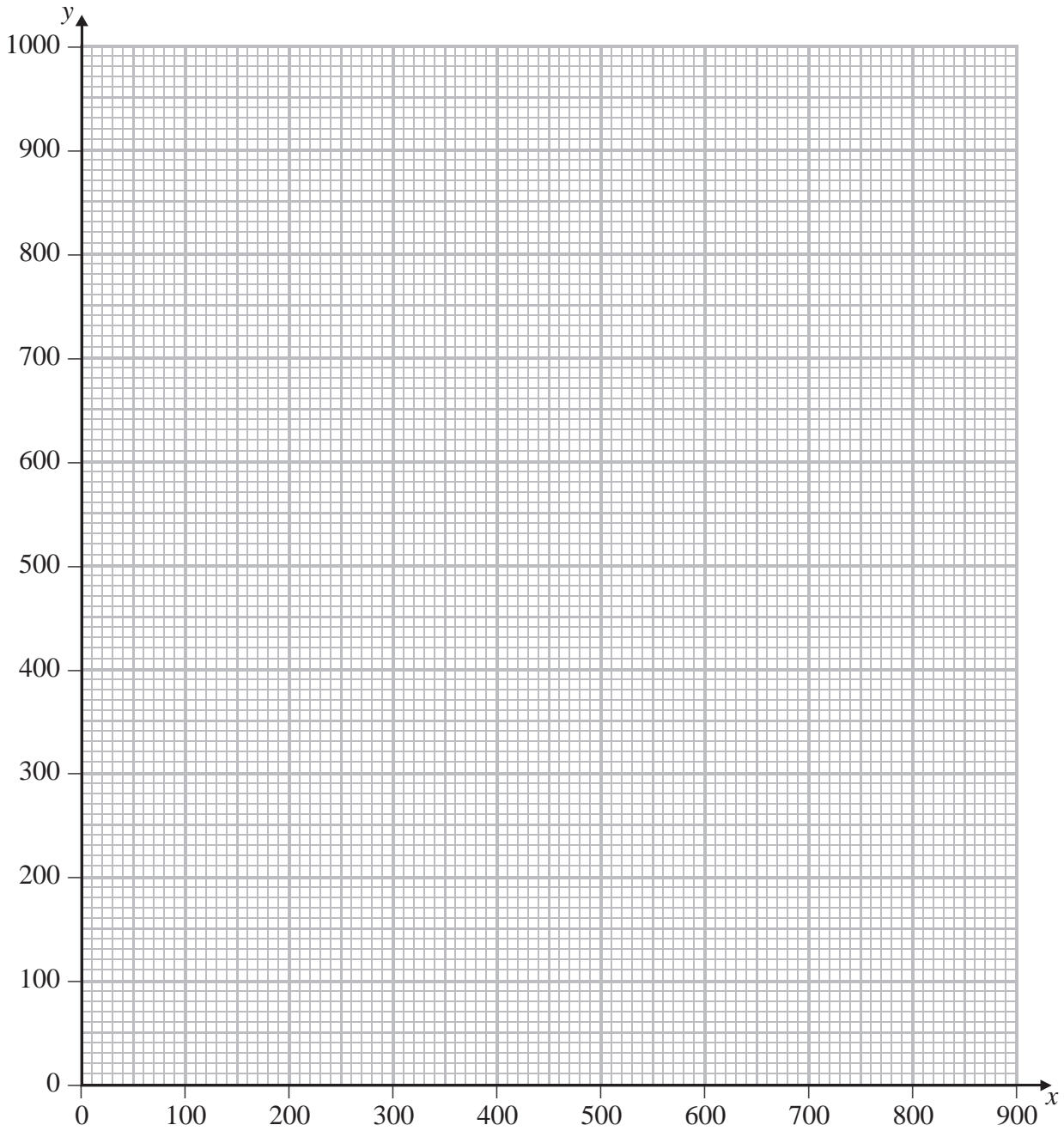


Diagram 1



Leave blank

7. (a)

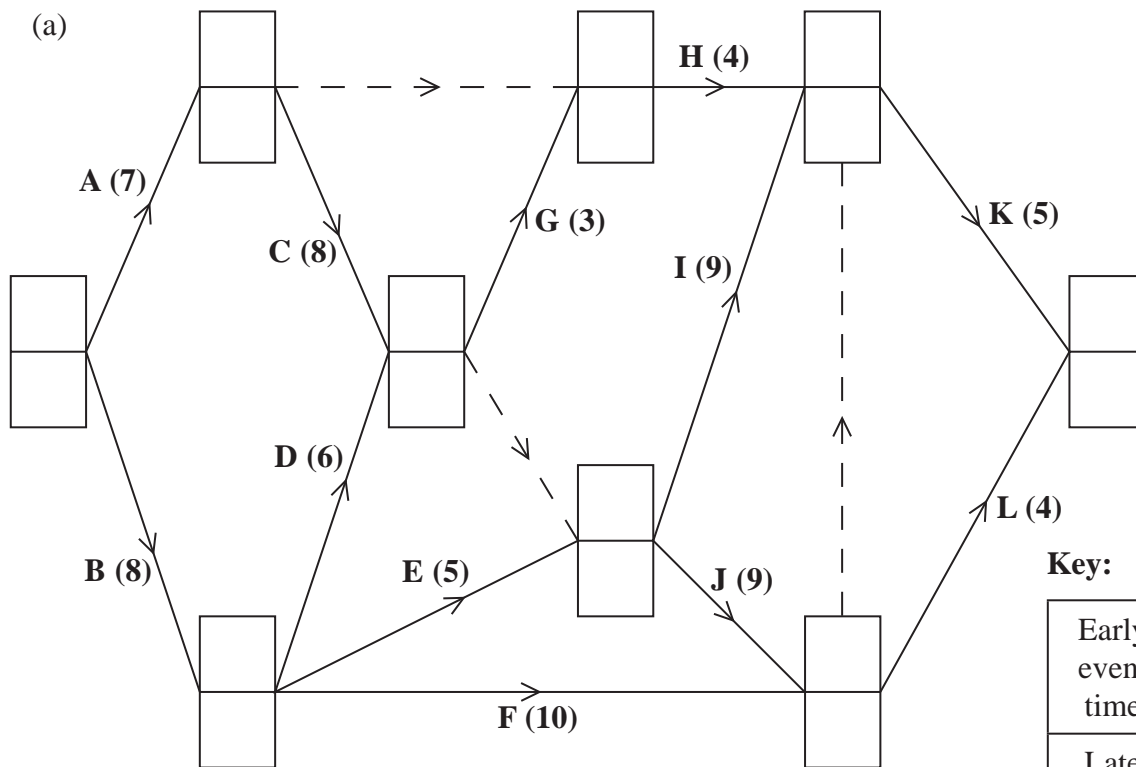


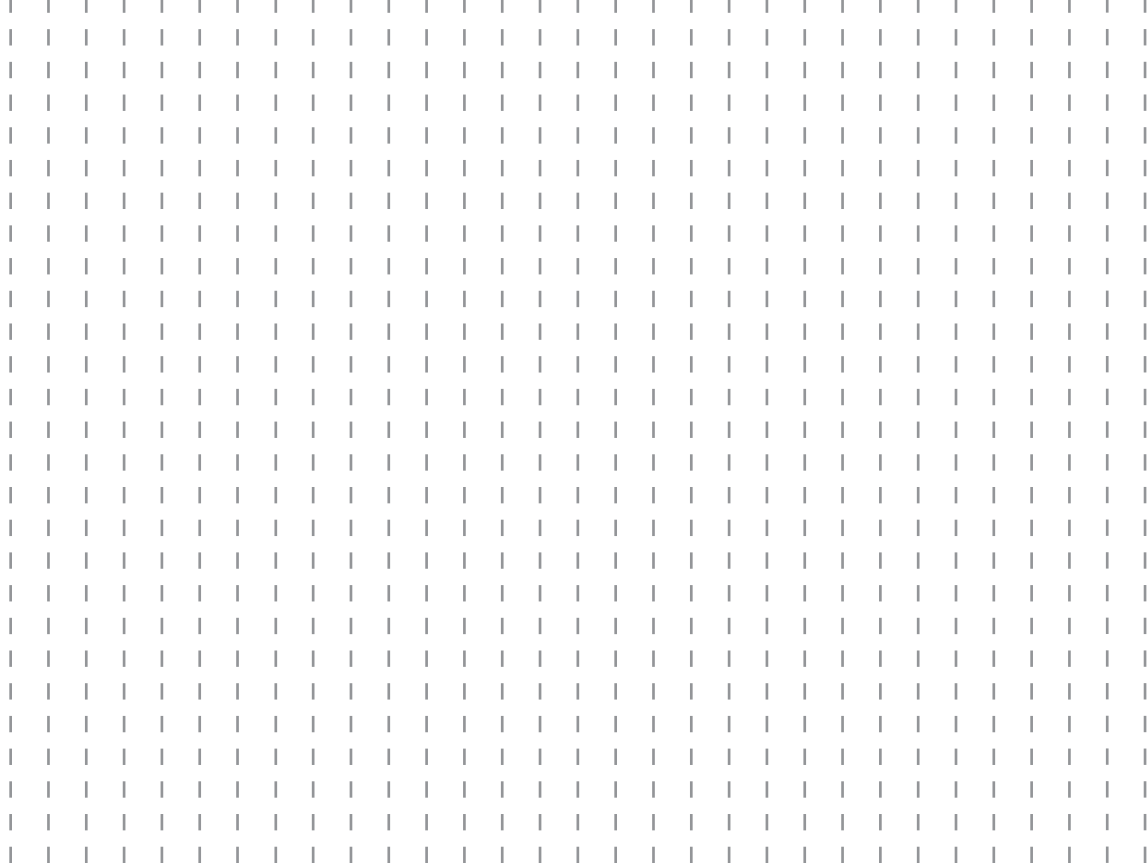
Diagram 1

Key:

Early event time
Late event time

(b)

0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30



Grid 1

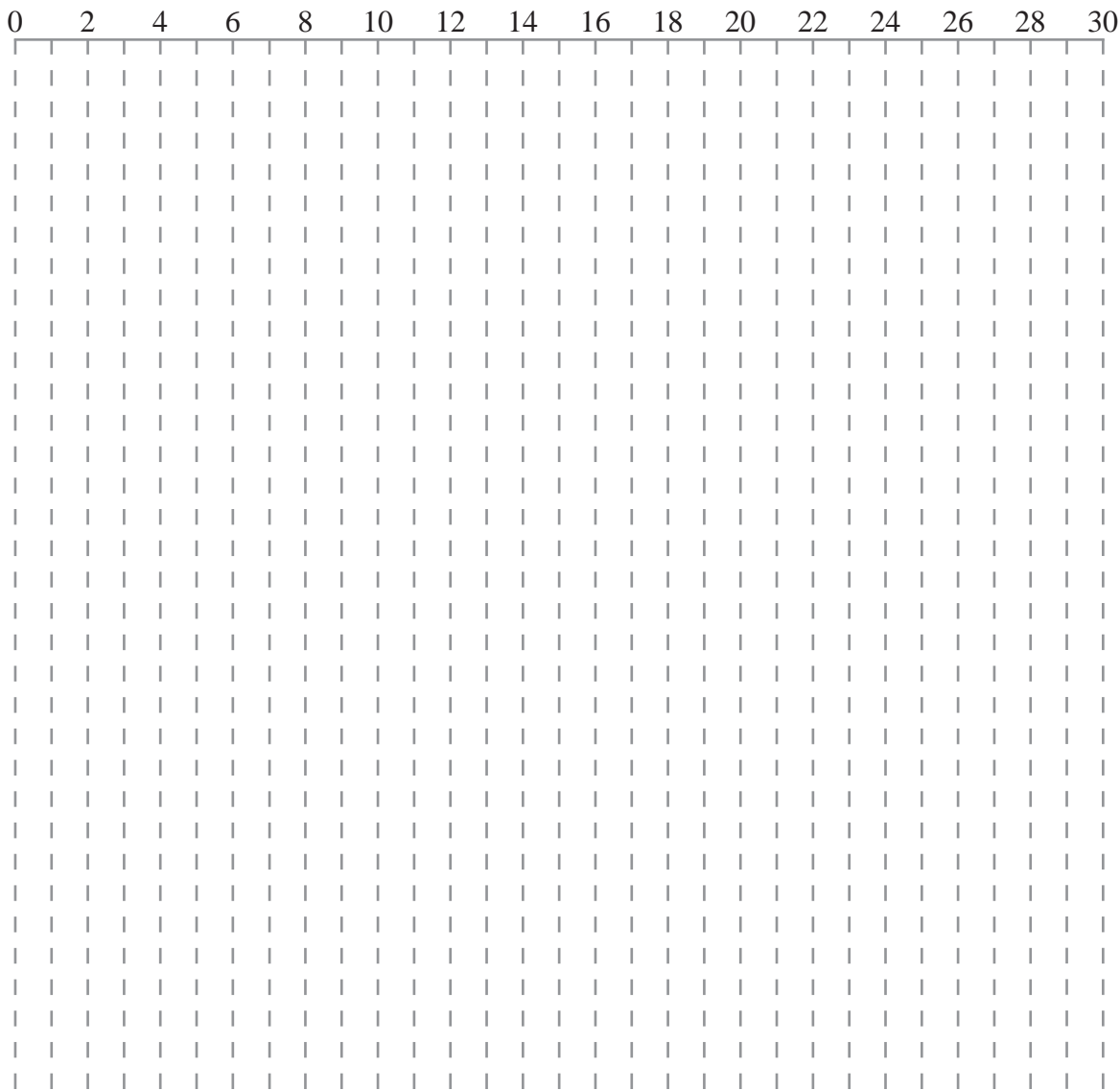


Leave
blank

Question 7 continued

(c)

(d)



Grid 2

(Total 14 marks)

Q7

--	--



