



Oxford Cambridge and RSA

Wednesday 20 October 2021 – Afternoon

AS Level Further Mathematics A

Y534/01 Discrete Mathematics

Printed Answer Booklet

Time allowed: 1 hour 15 minutes



You must have:

- Question Paper Y534/01 (inside this document)
- the Formulae Booklet for AS Level Further Mathematics A
- a scientific or graphical calculator



Please write clearly in black ink. **Do not write in the barcodes.**

Centre number

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Candidate number

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First name(s)

Last name

INSTRUCTIONS

- Use black ink. You can use an HB pencil, but only for graphs and diagrams.
- Write your answer to each question in the space provided in the **Printed Answer Booklet**. If you need extra space use the lined pages at the end of the Printed Answer Booklet. The question numbers must be clearly shown.
- Answer **all** the questions.
- Where appropriate, your answer should be supported with working. Marks might be given for using a correct method, even if your answer is wrong.
- Give non-exact numerical answers correct to **3** significant figures unless a different degree of accuracy is specified in the question.
- The acceleration due to gravity is denoted by $g\text{ m s}^{-2}$. When a numerical value is needed use $g = 9.8$ unless a different value is specified in the question.

INFORMATION

- The total mark for this paper is **60**.
- The marks for each question are shown in brackets [].
- This document has **16** pages.

ADVICE

- Read each question carefully before you start your answer.

1(a)	
1(b)	

1(c)

1(d)

2(a)(i)	12 23 15 18 8 7 5																								
	Next-fit method																								
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2(b)	

2(c)	

3(a)	

3(b)						
	A					
		B				
		1.7	C			
		2.1	2.5	D		
		2.2	1.8	1.2	E	
						F

3(c)	
	Total length =
	Arcs in the original network:

3(d)

4(a)(i)

Points won by Mia		Mia		
		X	Y	Z
Li	X	4		
	Y	11		5
	Z	10	5	1

4(a)(ii)

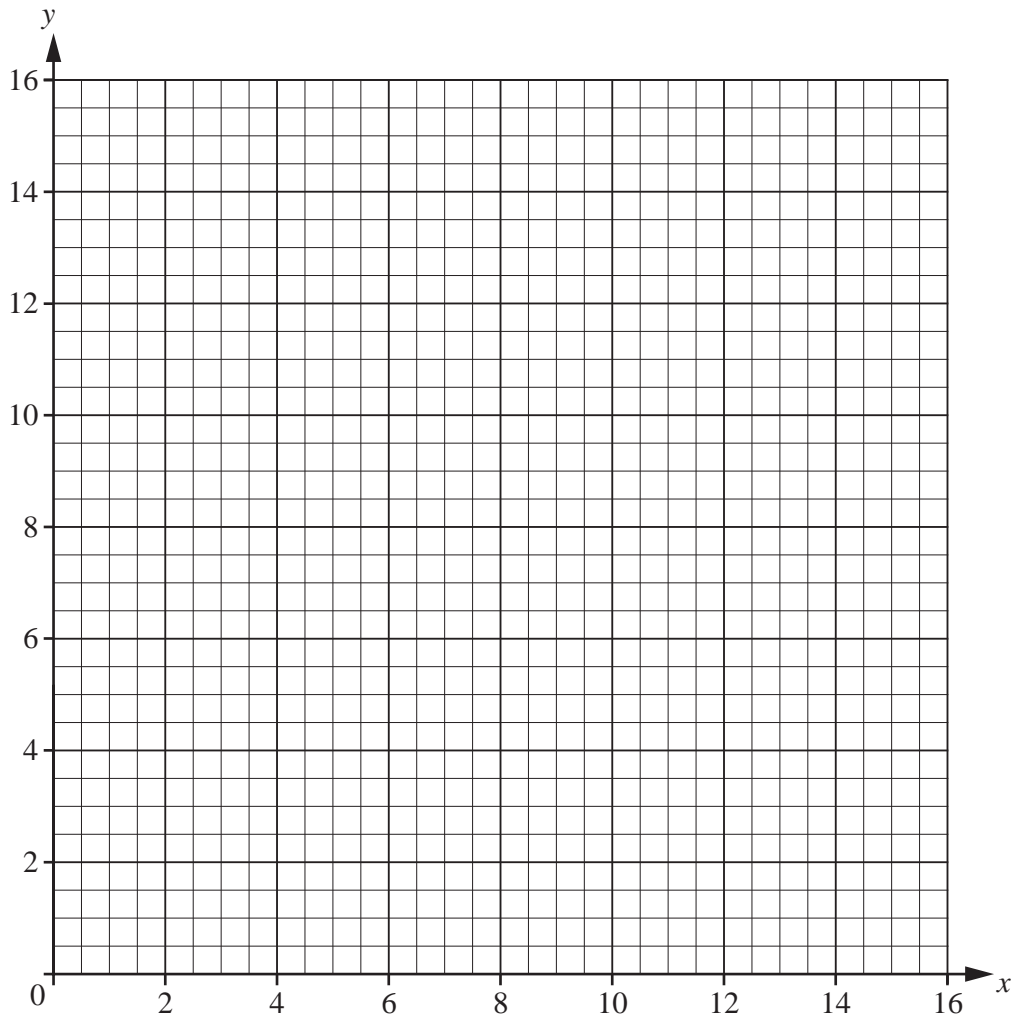
Points won by Li		Mia		
		X	Y	Z
Li	X			
	Y			
	Z			

4(b)

Points won by Li		Mia
Li		

4(c)

5(a)(i) There is a spare copy of this grid on page 16.



5(a)(ii)

5(b)

5(c)

6(a)(i) There is a spare blank page on page 15, if required.

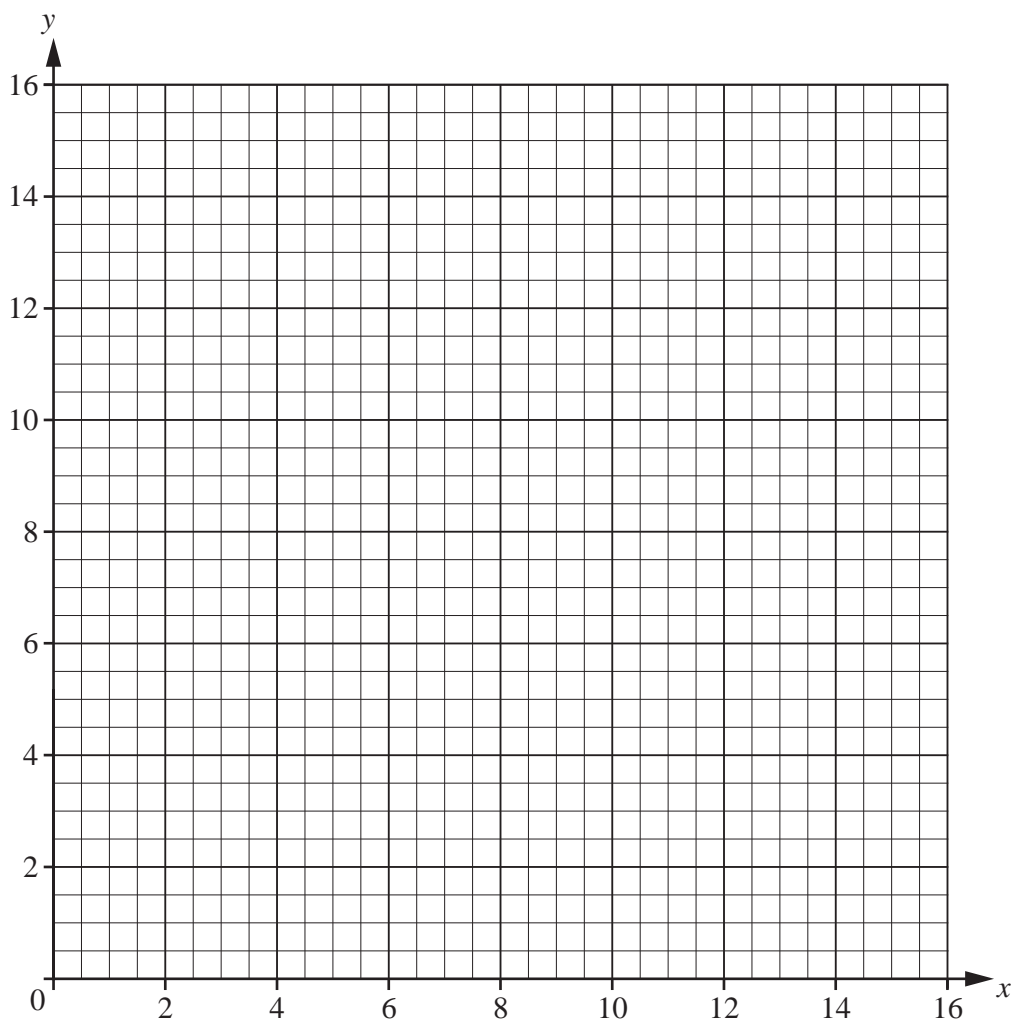
Minimum time =

Activities with zero float:

6(a)(ii)	
6(b)	
	6(c)

Spare blank page for question 6(a)(i)

Spare copy of grid for question 5(a)



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