basic education
Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

Candidate Barcode label/Stafieskodeplakker

SC/NSC Answer Book
SS/NSS Antwoordeboek

Senior Certificate/National Senior Certificate/*Senior Sertifikaat/Nasionale Senior Sertifikaat (Grade 12/Graad 12)*

CENTRE NUMBER *SENTRUMNOMMER*	
EXAMINATION NUMBER *EKSAMENNOMMER*	
DATE *DATUM*	
BOOK NUMBER *BOEKNOMMER*	**OF** *VAN* **BOOKS** *BOEKE*
SUBJECT CODE *VAKKODE*	
PAPER NUMBER *VRAESTELNOMMER*	**2**
SUBJECT NAME *VAKNAAM*	**MATHEMATICS/*WISKUNDE***

MARKER/NASIENER					**MODERATOR'S INITIALS IN RELEVANT BLOCK** *MODERATOR SE VOORLETTERS IN RELEVANTE BLOKKIE*																			
Question *Vraag*	**Marks** *Punte*			**Marker's code and Initials** *Nasiener se kode en Voorletters*	**Marks** *Punte*			**SM**	**Marks** *Punte*			**DCM** *AHN*	**Marks** *Punte*			**CM** *HN*	**Marks** *Punte*			**IM**	**Marks** *Punte*			**EM**
				TOTAL *TOTAAL*																				

CONTROLLED AND CERTIFIED CORRECT (SURNAME AND INITIALS OF EA) ***GEKONTROLEER EN AS KORREK GESERTIFISEER (VAN EN VOORLETTERS VAN EA)***

READ INSTRUCTIONS ON THE NEXT PAGE.
LEES INSTRUKSIES OP VOLGENDE BLADSY.

This answer book consists of 25 pages./*Hierdie antwoordeboek bestaan uit 25 bladsye.*

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PLEASE FOLLOW THESE INSTRUCTIONS CAREFULLY	***VOLG ASSEBLIEF HIERDIE INSTRUKSIES NOUKEURIG***
1. Clearly write your examination number and centre number in the space provided and attach your barcode label in the space provided.	*1. Skryf jou eksamennommer en sentrumnommer duidelik in die ruimtes verskaf en plak jou stafieskodeplakker in die ruimte verskaf.*
2. Remember that your own name (or the name of your school) may NOT appear anywhere on or in this answer book.	*2. Onthou dat jou eie naam (of die naam van jou skool) NIE op of in hierdie antwoordeboek mag voorkom NIE.*
3. Answer ALL questions in the spaces provided.	*3. Beantwoord ALLE vrae in die ruimtes wat verskaf is.*
4. NO pages may be torn from this answer book.	*4. GEEN bladsye mag uit hierdie antwoordeboek geskeur word NIE.*
5. Read the instructions printed on your timetable carefully as well as any other instructions which may be given in each question paper.	*5. Lees die instruksies, wat op jou eksamenrooster gedruk is, sorgvuldig deur, asook enige ander instruksies wat op elke vraestel gegee word.*
6. Candidates may NOT retain an answer book or remove it from the examination room.	*6. GEEN antwoordeboek mag deur die kandidaat behou of uit die eksamenlokaal verwyder word NIE.*
7. Answers must be written in black/blue ink as distinctly as possible. Do NOT write in the margins.	*7. Skryf die antwoorde so duidelik moontlik met swart/blou ink. Laat die kantlyne oop.*
8. Write the numbers of the questions you have answered on the front cover of the answer book where marks are to be recorded.	*8. Skryf die nommers van die vrae wat jy beantwoord het op die voorblad van die antwoordeboek waar die punte aangebring word.*
9. If you require additional space for your answers: 9.1 Use the additional space provided at the end of the answer book. 9.2 When answering a question in the additional space, clearly indicate the question number in the column on the LHS. 9.3 Rule off after each answer.	*9. In geval jy bykomende ruimte benodig vir jou antwoorde:* *9.1 Gebruik die bykomende ruimte wat aan die einde van die antwoordeboek verskaf word.* *9.2 As 'n vraag in die bykomende ruimte beantwoord word, dui duidelik die vraagnommer in die kolom aan die LK aan.* *9.3 Trek 'n lyn na elke antwoord.*
10. Draw a neat line through any work/rough work that must not be marked.	*10. Trek 'n netjiese lyn deur enige werk/rofwerk wat nie nagesien moet word nie.*

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QUESTION/*VRAAG* 1

TIME TAKEN (*t*) (IN MINUTES)/ *TYD GENEEM (t) (IN MINUTE)*	**NUMBER OF CHILDREN/ *GETAL KINDERS***
$2 < t \leq 6$	2
$6 < t \leq 10$	10
$10 < t \leq 14$	9
$14 < t \leq 18$	7
$18 < t \leq 22$	8
$22 < t \leq 26$	7
$26 < t \leq 30$	2

	Solution/*Oplossing*	**Marks *Punte***
1.1		(1)
1.2		(2)

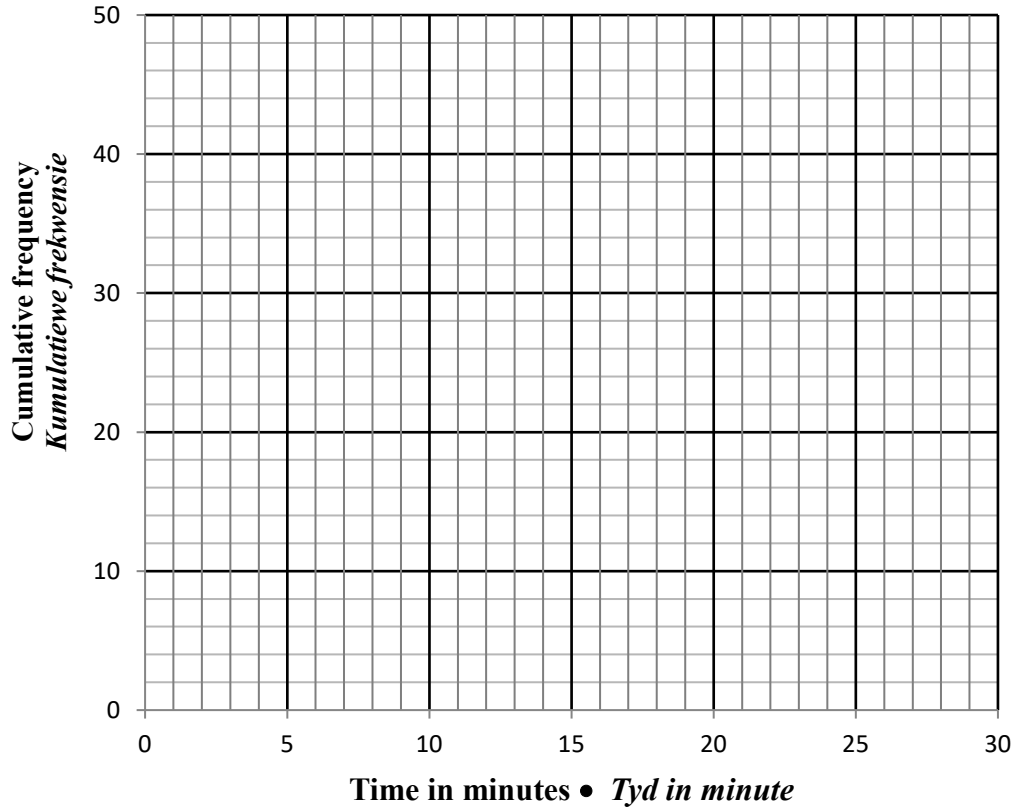
1. 3

Time in minutes (t) *Tyd in minute (t)*	**Number of children** *Getal kinders*	**Cumulative frequency** *Kumulatiewe frekwensie*
$2 < t \leq 6$	2	
$6 < t \leq 10$	10	
$10 < t \leq 14$	9	
$14 < t \leq 18$	7	
$18 < t \leq 22$	8	
$22 < t \leq 26$	7	
$26 < t \leq 30$	2	

(2)

1. 4

CUMULATIVE FREQUENCY GRAPH (OGIVE)
KUMULATIEWEFREKWENSIEGRAFIEK (OGIEF)



(3)

1.5

(2)

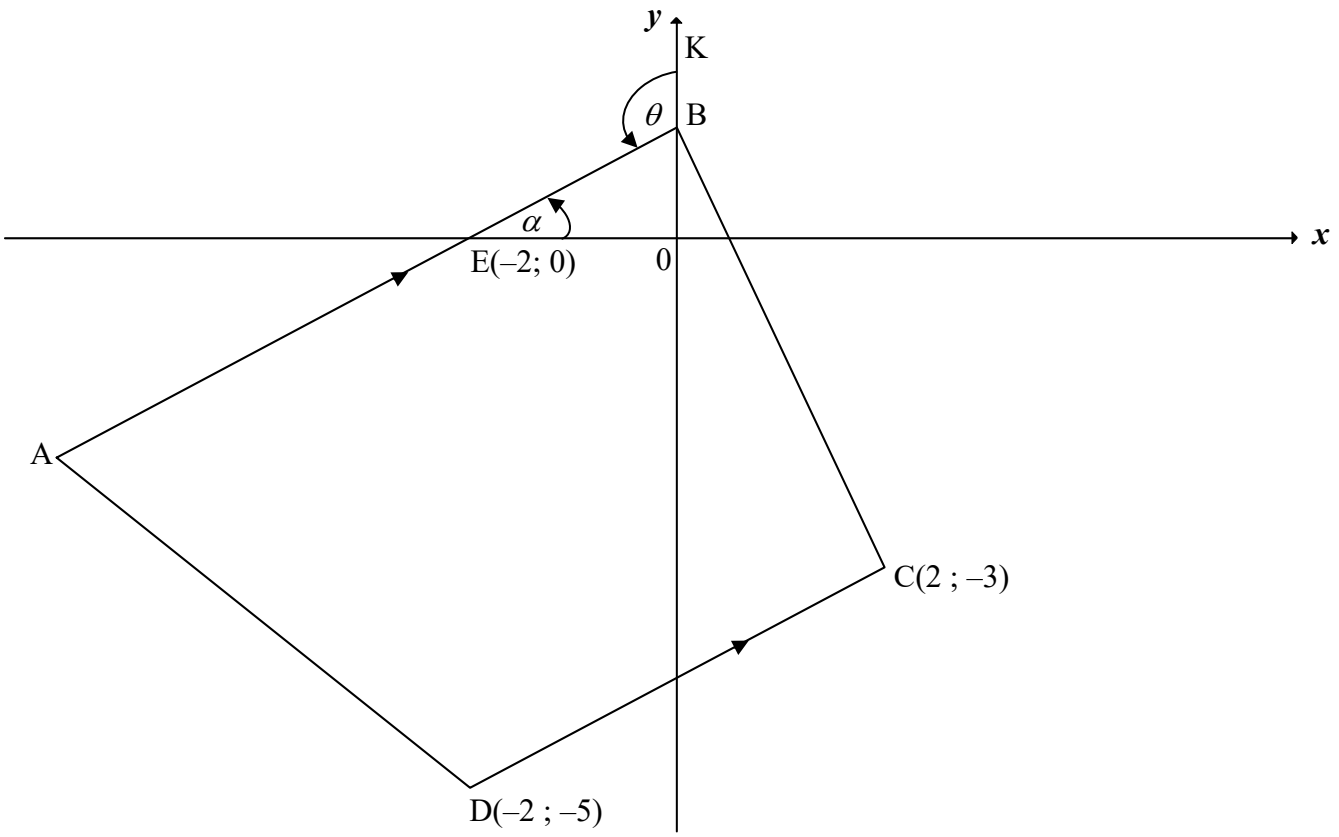
[10]

QUESTION/*VRAAG* 2

LEARNER/ *LEERDER*	**L1**	**L2**	**L3**	**L4**	**L5**	**L6**	**L7**	**L8**	**L9**	**L10**	**L11**	**L12**	**L13**	**L14**	**L15**
TEST 1/ *TOETS 1* (%)	10	18	23	24	27	34	34	36	37	39	40	44	45	48	49
TEST 2/ *TOETS 2* (%)	33	21	32	20	58	43	49	48	41	55	50	45	62	68	60

	Solution/*Oplossing*	**Marks *Punte***
2.1		(3)
2.2.1		(1)
2.2.2		(2)
2.3.1		(2)
2.3.2		(2)
		[10]

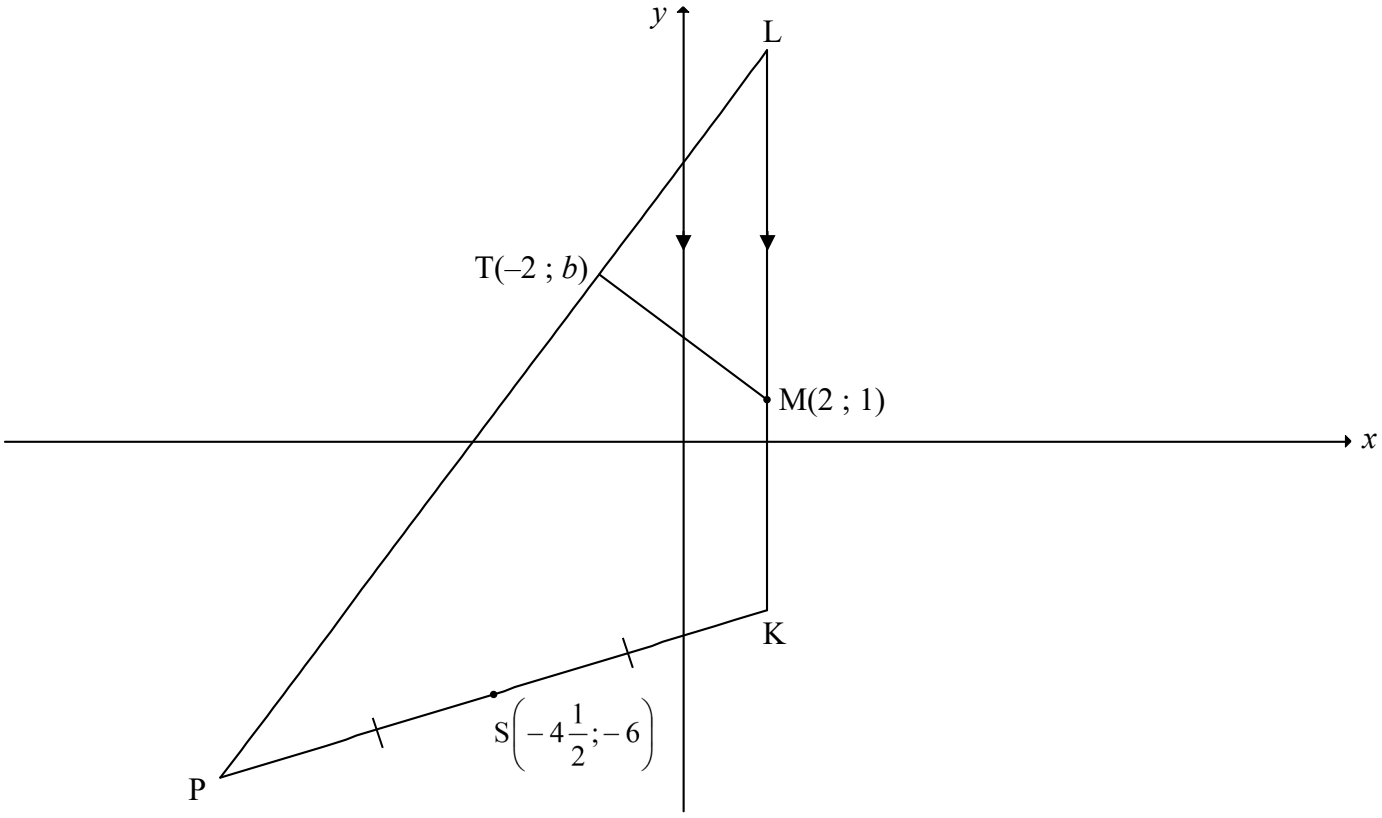
QUESTION/*VRAAG* 3



	Solution/*Oplossing*	**Marks** ***Punte***
3.1.1		(2)
3.1.2		(2)

	Solution/*Oplossing*	**Marks** ***Punte***
3.1.3		(3)
3.1.4		(3)
3.2		(3)
3.3.1		(1)
3.3.2		(4)
		[18]

QUESTION/*VRAAG* 4



	Solution/*Oplossing*	**Marks** ***Punte***
4.1		(4)
4.2.1		(2)

	Solution/*Oplossing*	**Marks** ***Punte***
4.2.2		(4)
4.2.3		(7)
4.3		(4)
		[21]

QUESTION/*VRAAG* 5

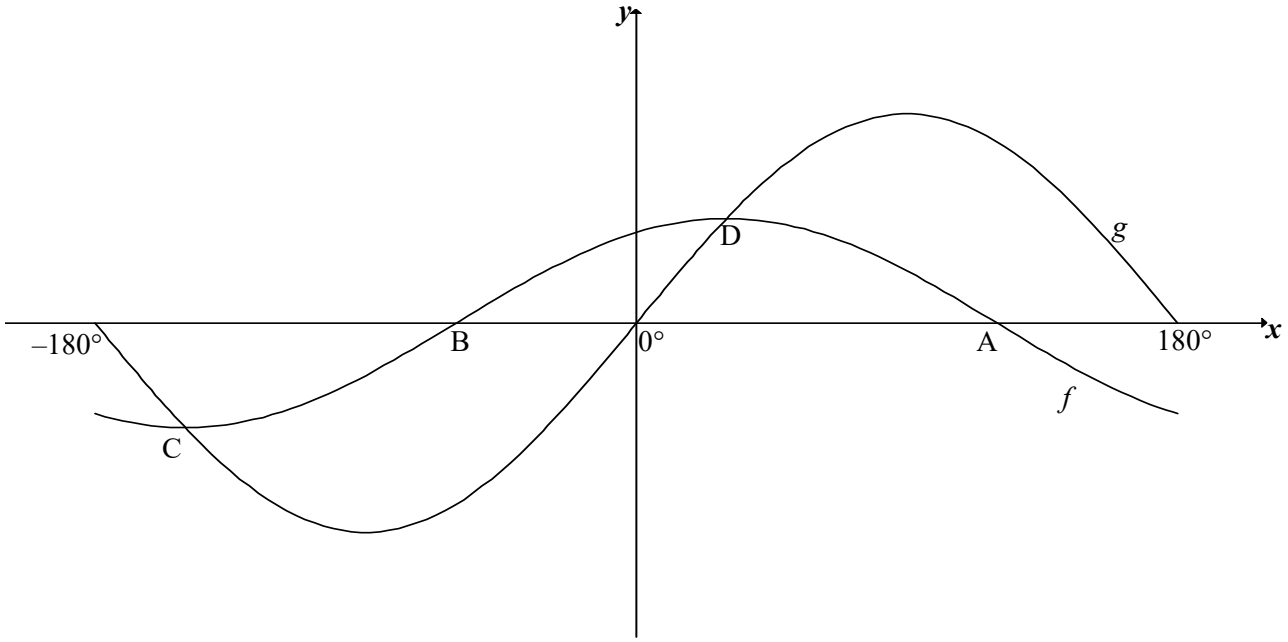
	Solution/*Oplossing*	**Marks** ***Punte***
5.1.1		(1)
5.1.2		(1)
5.2		(5)

	Solution/*Oplossing*	**Marks** ***Punte***
5.3		
		(5)
		[12]

QUESTION/*VRAAG* 6

	Solution/*Oplossing*	**Marks** ***Punte***
6.1		(6)

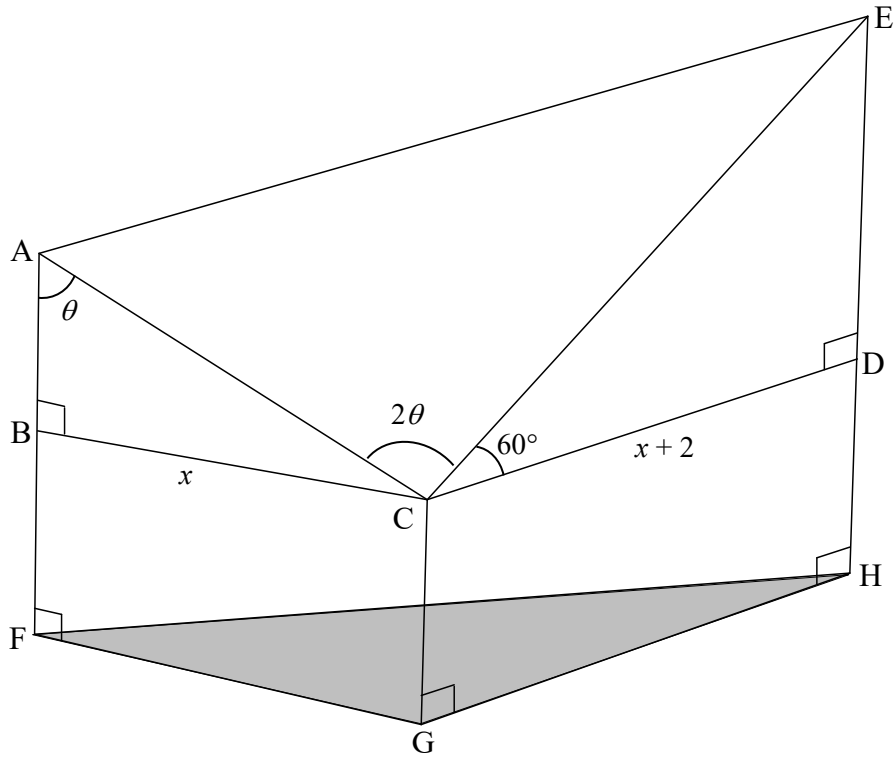
6.2



	Solution/*Oplossing*	**Marks** ***Punte***
6.2.1(a)		(1)
6.2.1(b)		(2)
6.2.2(a)		(2)
6.2.2(b)		(2)

6.2.3		(5)
		[18]

QUESTION/*VRAAG* 7



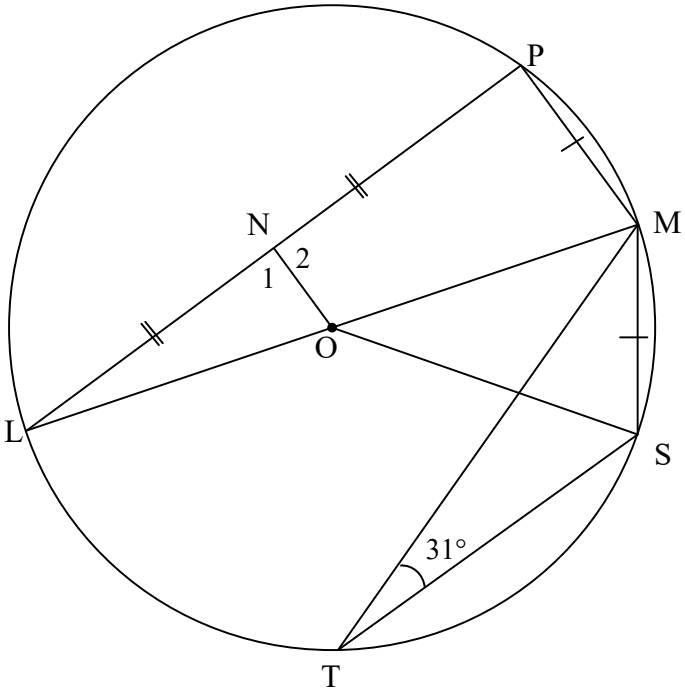
	Solution/*Oplossing*	**Marks** ***Punte***
7.1.1		(2)
7.1.2		(2)

	Solution/*Oplossing*	**Marks** ***Punte***
7.2		(3)
7.3		(4)
		[11]

Give reasons for your statements in QUESTIONS 8, 9 and 10.
Gee redes vir jou bewerings in VRAAG 8, 9 en 10.

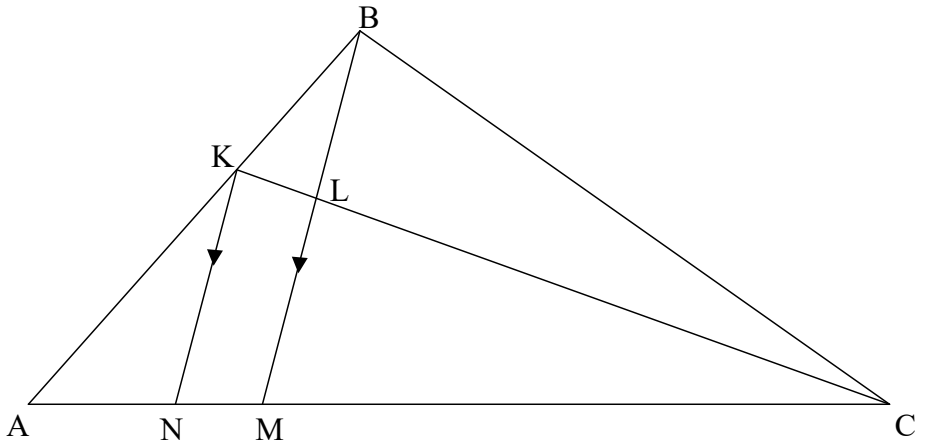
QUESTION/*VRAAG 8*

8.1



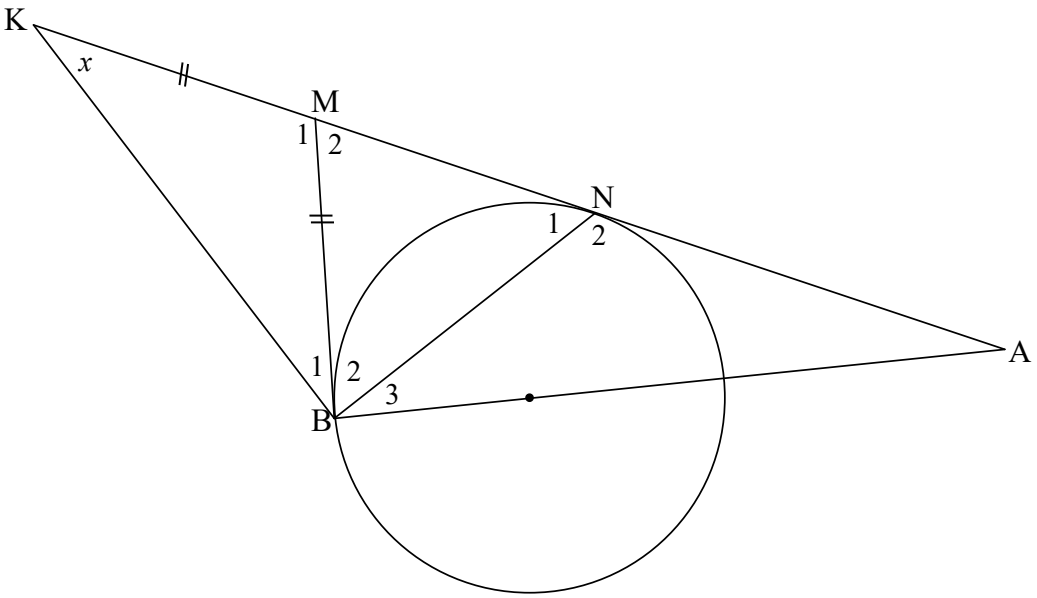
	Solution/*Oplossing*	**Marks** ***Punte***
8.1.1(a)		(2)
8.1.1(b)		(2)
8.1.2		(4)

8.2



	Solution/*Oplossing*	**Marks** ***Punte***
8.2.1		(2)
8.2.2		(3)
		[13]

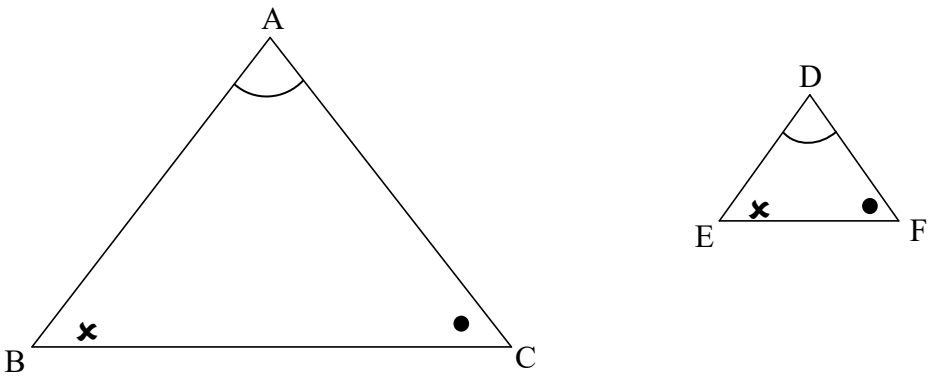
QUESTION/*VRAAG* 9



	Solution/*Oplossing*	**Marks** ***Punte***
9.1		(6)
9.2		(5)
		[11]

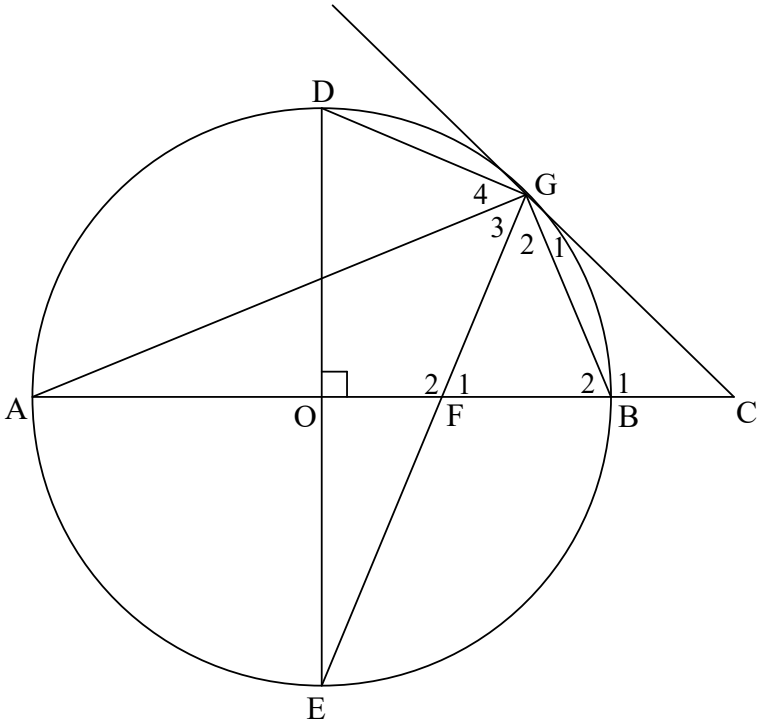
QUESTION/*VRAAG* 10

10.1



	Solution/*Oplossing*	**Marks** ***Punte***
		(6)

10.2



	Solution/*Oplossing*	**Marks** ***Punte***
10.2.1(a)		(3)
10.2.1(b)		(5)
10.2.2(a)		(3)

	Solution/*Oplossing*	**Marks** ***Punte***
10.2.2(b)		(5)
10.2.2(c)		(4)
		[26]

TOTAL/*TOTAAL*: 150

	Additional space/*Bykomende ruimte*	**Marks** ***Punte***

	Additional space/*Bykomende ruimte*	**Marks** ***Punte***

RE-MARK/RE-CHECK *HERMERK/HERSIEN*				
Question *Vraag*	**Marks** *Punte*			**Initials** *Voorletters*
TOTAL *TOTAAL*				
HASH TOTAL *KAF-TOTAAL*				

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