

**LEARNER'S NAME/NAAM VAN LEERDER**

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**NATIONAL SENIOR CERTIFICATE/  
NASIONALE SENIORSERTIFIKAAT**

**MATHEMATICS P2/WISKUNDE V2**

**GRADE 12/GRAAD 12**

**SEPTEMBER 2019**

<b>SPECIAL ANSWER BOOK/ SPESIALE ANTWOORDEBOEK</b>
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<b>QUESTION/ VRAAG</b>	<b>MARK/ PUNT</b>	<b>INITIAL/ PARAAF</b>	<b>MODERATOR</b>
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
<b>TOTAL/ TOTAAL</b>			

**This answer book consists of 18 pages. /  
Hierdie antwoordeboek bestaan uit 18 bladsye.**

<b>FOLLOW THESE INSTRUCTIONS CAREFULLY</b>	<b>VOLG HIERDIE INSTRUKSIES NOUKEURIG</b>
1. Clearly write your name in the space provided.	1. Skryf jou naam in die ruimte soos verskaf.
2. No pages may be torn from this answer book.	2. Geen bladsy mag uit hierdie antwoordeboek geskeur word nie.
3. Read the instructions given in the examination paper carefully.	3. Lees die instruksies wat in die eksamenvraestel gegee word, sorgvuldig deur.
4. Learners may not retain any answer book or remove them from the examination room.	4. Leerders mag geen antwoordeboek behou of uit die eksamenlokaal verwyder nie.
5. Answers must be written in black/blue ink as distinctly as possible.	5. Skryf die antwoorde so duidelik moontlik met swart/blou ink.
6. Draw a neat line through any work/rough work that must not be marked.	6. Trek 'n netjiese lyn deur enige werk/rofwerk wat nie nagesien moet word nie.

**QUESTION/VRAAG 1**

<b>Time in seconds/ Tyd in sekondes</b>	<b>Number of aeroplanes/ Aantal vliegtuie (Frequency/Frekwensie)</b>	<b>Cumulative Frequency/ Kumulatiewe Frekwensie</b>
$60 < t \leq 90$	2	2
$90 < t \leq 120$	16	18
$120 < t \leq 150$	28	46
$150 < t \leq 180$	17	63
$180 < t \leq 210$	$k$	$p$
$210 < t \leq 240$	7	80

	<b>Solution/Oplissing</b>	<b>Marks/ Punte</b>
1.1		(1)
1.2		(1)
1.3		(3)
1.4.1		(2)

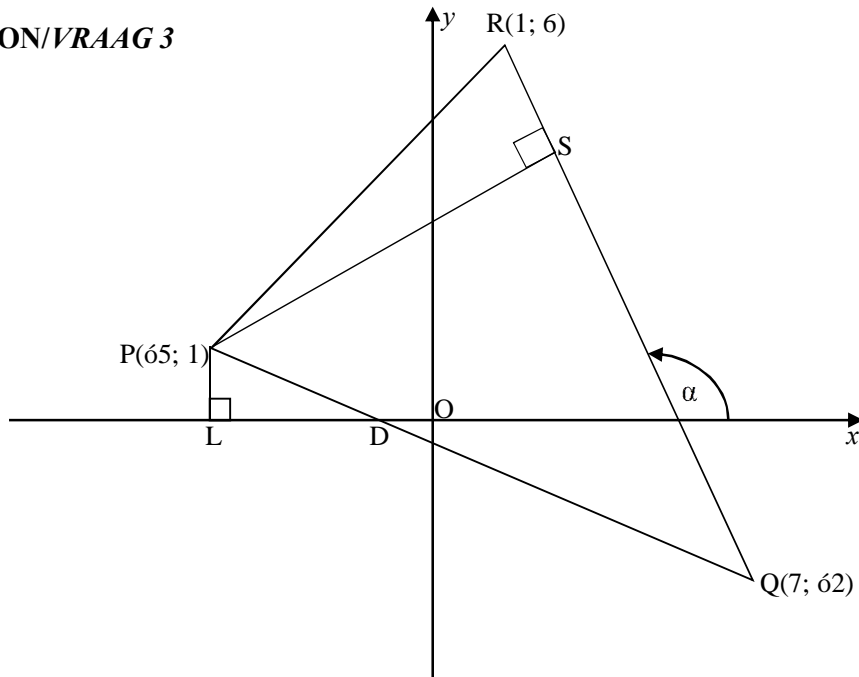
1.4.2		(1)
1.5		(2)
		<b>[10]</b>

**QUESTION/VRAAG 2**

<b>Accounting/ Rekeningkunde</b>	76	65	88	68	70	79	51	66	59	74
<b>Mathematics/ Wiskunde</b>	80	69	93	19	76	85	57	79	62	78

	<b>Solution/Oplissing</b>	<b>Marks/ Punte</b>
2.1		(1)
2.2		(3)
2.3		(2)
2.4		(2)
2.5		(2)
		<b>[10]</b>

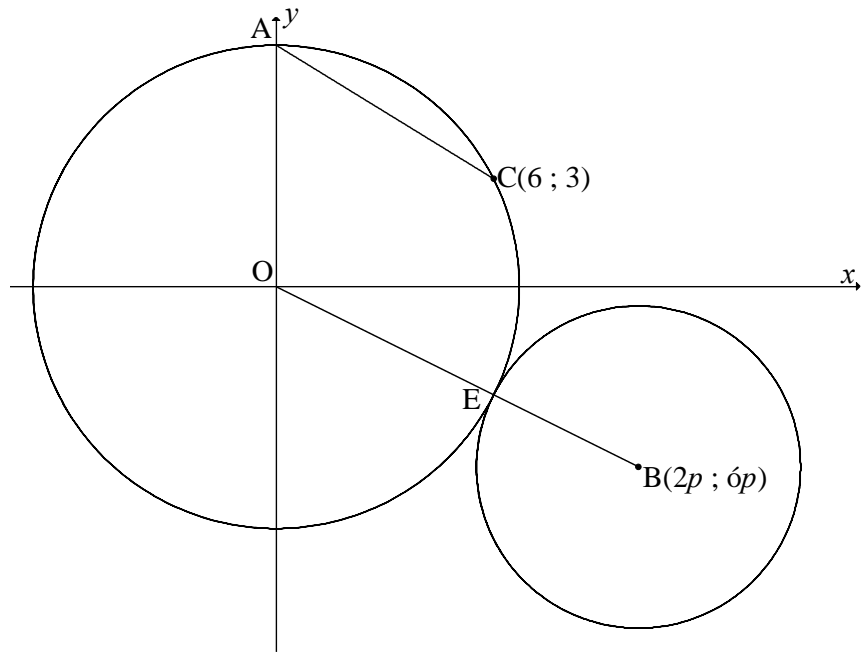
**QUESTION/VRAAG 3**



	<b>Solution/Oplissing</b>	<b>Marks/Punte</b>
3.1		(1)
3.2		(2)
3.3		(4)
3.4		(3)

3.5		(4)
3.6		(5)
	<b>[19]</b>	

**QUESTION/VRAAG 4**



	<b>Solution/Oplissing</b>	<b>Marks/Punte</b>
4.1		(2)
4.2		(2)
4.3		(3)
4.4		(2)

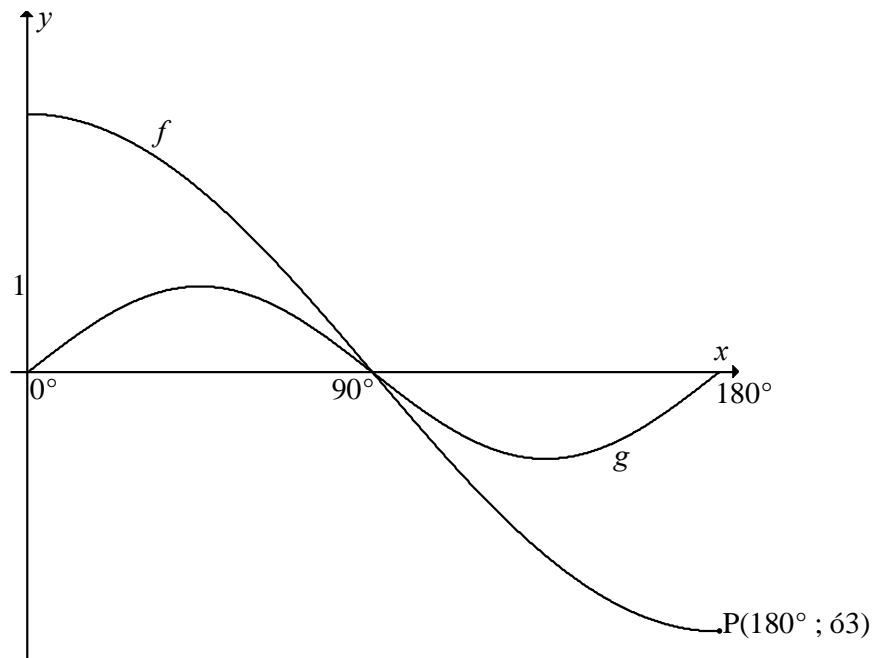
	<b>Solution/Oplissing</b>	<b>Marks/ Punte</b>
4.5.1		(2)
4.5.2		(5)
4.6		(6)
	<b>[22]</b>	

**QUESTION/VRAAG 5**

	<b>Solution/Oplissing</b>	<b>Marks/Punte</b>
5.1.1		(7)
5.1.2		(4)
5.2.1		(3)
5.2.2		(5)
		<b>[19]</b>



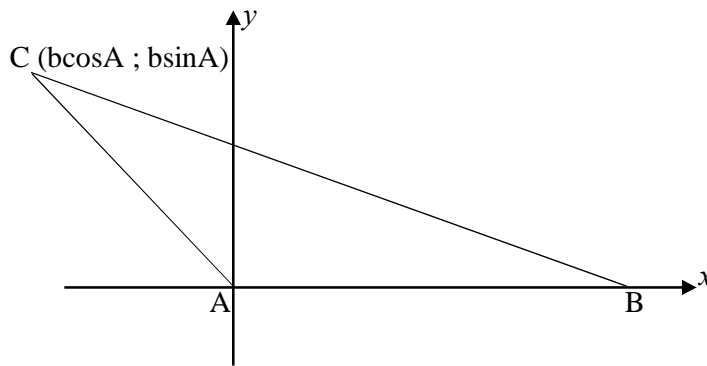
**QUESTION/VRAAG 6**



	<b>Solution/Oplissing</b>	<b>Marks/Punte</b>
6.1		(2)
6.2		(1)
6.3		(2)
6.4		(3)

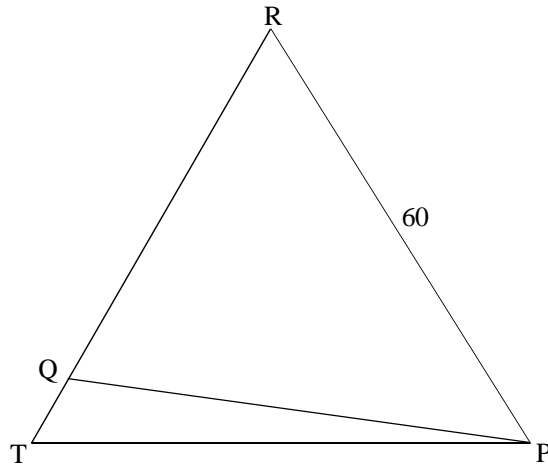
6.5		(3)
		<b>[11]</b>

**QUESTION 7/VRAAG 7**



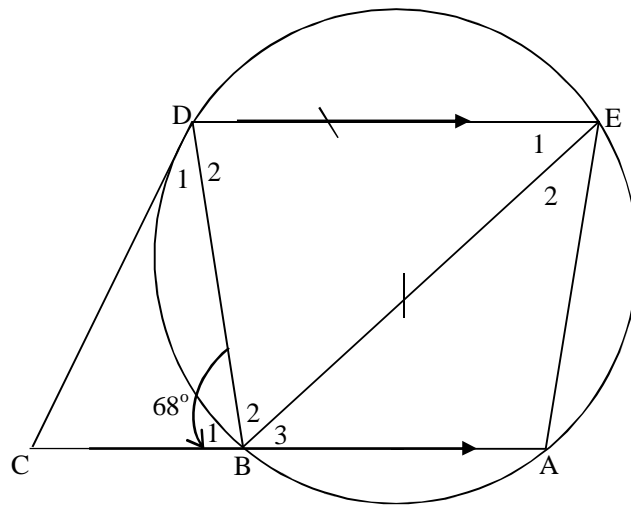
	<b>Solution/Oplissing</b>	<b>Marks/Punte</b>
7.1		(4)

7.2



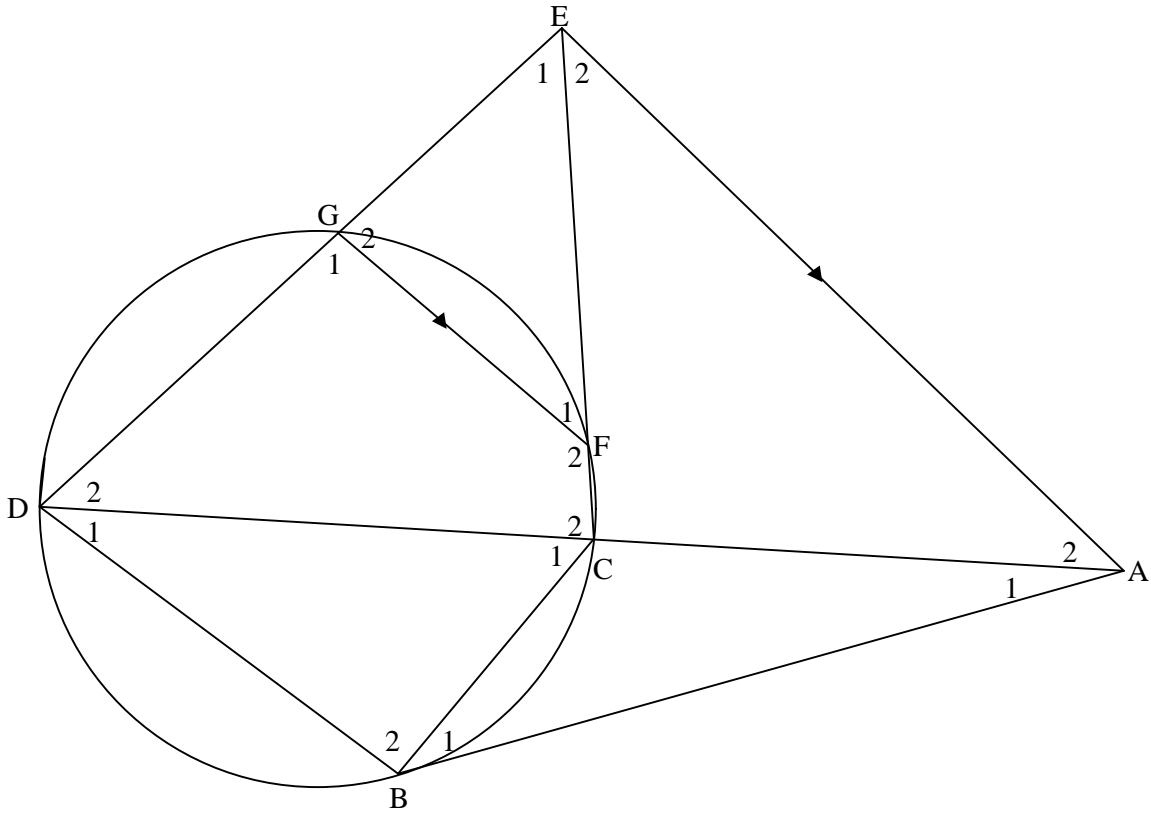
	<b>Solution/Oplissing</b>	<b>Marks/ Punte</b>
7.2.1		(4)
7.2.2		(4)
	<b>[12]</b>	

**QUESTION/VRAAG 8**



8.1.1		(2)
8.1.2		(1)
8.1.3		(2)
8.1.4		(1)
8.1.5		(3)
8.2		(2)
8.3		(2)
		<b>[13]</b>

**QUESTION 9/VRAAG 9**

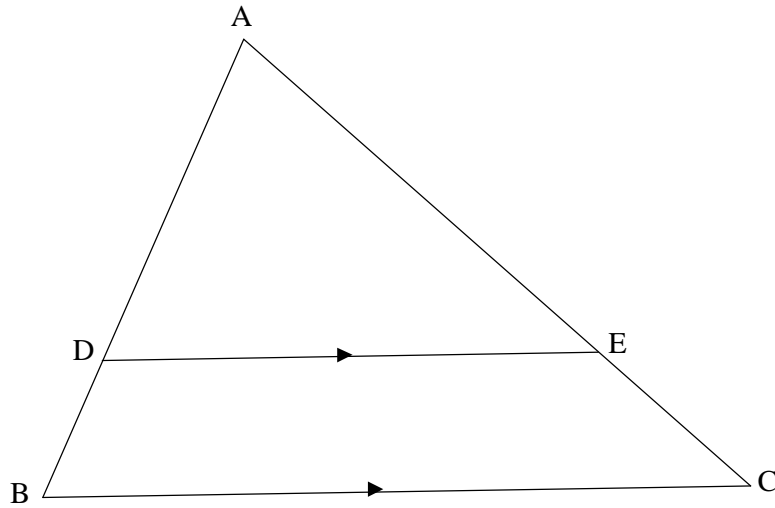


	<b>Solution/Oplissing</b>	<b>Marks/Punte</b>
9.1		(1)
9.2		(3)

	<b>Solution/Oplissing</b>	<b>Marks/ Punte</b>
9.3		(4)
9.4		(5)
9.5		(3)
		<b>[16]</b>

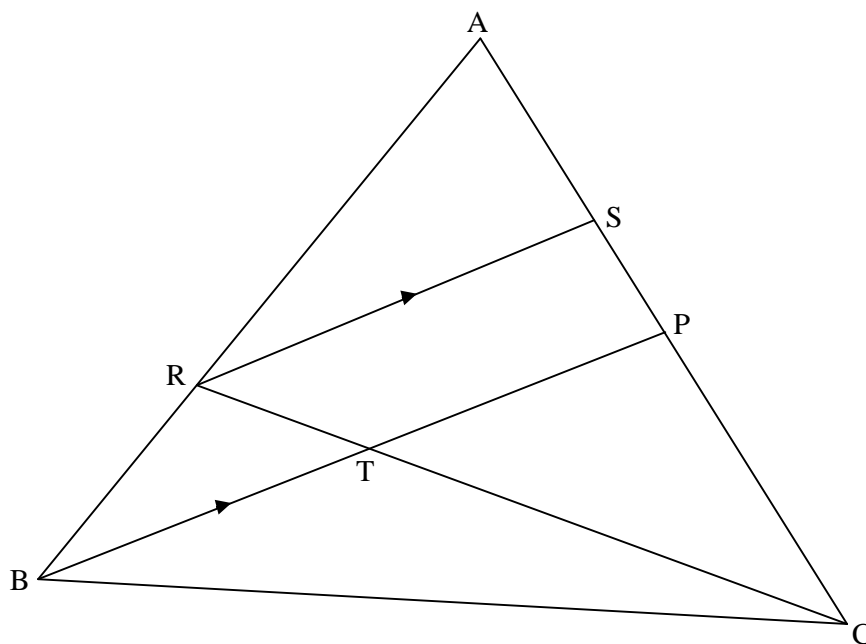
**QUESTION 10/VRAAG 10**

10.1



	<b>Solution/Oplissing</b>	<b>Marks/ Punte</b>
10.1		(6)

10.2



	<b>Solution/Oplissing</b>	<b>Marks/Punte</b>
10.2.1		(4)
10.2.2		(3)
10.2.3		(2)
10.2.4		(3)
		<b>[18]</b>



	<b>Additional space/ <i>Bykomende ruimte</i></b>	<b>Marks/ <i>Punte</i></b>

