



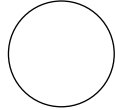
basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

Candidate Barcode Label/Stafieskodeplakker

NSC Answer Book
NSS-Antwoordeboek

NATIONAL SENIOR CERTIFICATE/NASIONALE SENIOR SERTIFIKAAT (Grade 12/Graad 12)



Sequence no on mark sheet
Volgnommer op puntestaat

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 TECHNICAL MATHEMATICS/TEGNIESE WISKUNDE

This answer book consists of 23 pages/Hierdie antwoordeboek bestaan uit 23 bladsye.

Table with columns: MARKER/NASIENER, MODERATOR'S INITIALS IN RELEVANT BLOCK/MODERATORPARAAF IN BETROKKE BLOKKIE, and rows 1-16.

Table with columns: RE-MARK/RE-CHECK/HERNASIEN/HERKONTROLEER, and rows 1-16.

TOTAL TOTAAL

TOTAL TOTAAL
HASH TOTAL
KAFTOTAAL

CONTROLLED AND CERTIFIED CORRECT
SURNAME AND INITIALS OF EA)

PLEASE READ INSTRUCTIONS ON THE NEXT PAGE
LEES ASSEBLIEF INSTRUKSIES OP VOLGENDE BLADSY

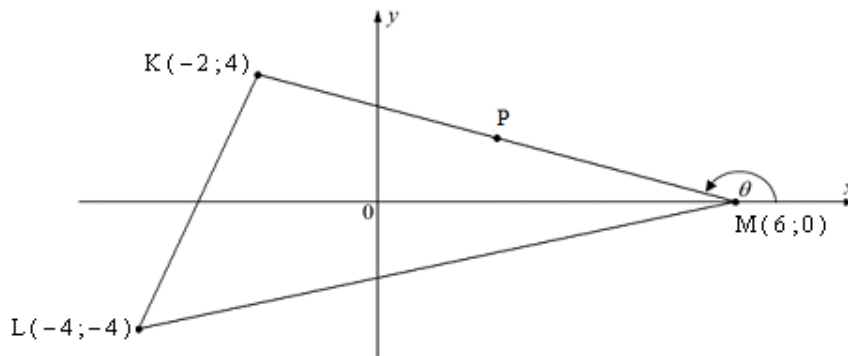


WESTERN CAPE

PLEASE FOLLOW THESE INSTRUCTIONS CAREFULLY	VOLG ASSEBLIEF HIERDIE INSTRUKSIES NOUKEURIG
<p>1. Your examination number and centre number must be clearly written in the space provided and attach your examination number sticker in the space provided.</p> <p>2. Remember that your own name (or the name of your school) may NOT appear anywhere on or in this answer book.</p> <p>3. Answer ALL questions in the spaces provided.</p> <p>4. NO pages may be torn from this answer book.</p> <p>5. Read the instructions printed on your timetable carefully as well as any other instructions which may be given in each examination paper.</p> <p>6. Candidates may NOT retain an answer book or remove it from the examination room. Answer books must be returned to the Invigilator at the end of the examination session.</p> <p>7. Answers must be written in black/blue ink as distinctly as possible. Do NOT write in the margins.</p> <p>8. Indicate the questions you have answered by drawing a circle around the relevant numbers on the front cover of the answer book where marks are to be recorded.</p> <p>9. Draw a line through any work/rough work that must not be marked.</p> <p>10. In the event that you use the additional space provided: 10.1 Write down the question number question 10.2 Leave a line and rule off after your answer.</p>	<p>1. Skryf jou eksamennommer en sentrumnommer duidelik in die ruimtes verskaf en plak jou eksamennommeretiket in die ruimte verskaf.</p> <p>2. Onthou dat jou eie naam (of die naam van jou skool) NIE op of in hierdie antwoordeboek mag voorkom nie.</p> <p>3. Beantwoord ALLE vrae in die ruimtes wat verskaf is.</p> <p>4. GEEN bladsye mag uit hierdie antwoordeboek geskeur word NIE.</p> <p>5. Lees die instruksies wat op jou eksamenrooster gedruk is sorgvuldig deur, asook enige ander instruksies wat in elke eksamenvraestel gegee word.</p> <p>6. GEEN antwoordeboek mag deur die kandidaat behou of uit die eksamenlokaal verwyder word NIE. Antwoordeboeke moet aan die einde van die eksamensessie aan die toesighouer terugbesorg word.</p> <p>7. Skryf die antwoorde so duidelik moontlik met swart/blou ink. MOENIE in die kantlyn skryf NIE.</p> <p>8. Dui die vrae wat jy beantwoord het op die voorblad van die antwoordeboek aan, waar die punte aangebring word, deur 'n kringetjie om die nommers van die vrae wat jy beantwoord het, te trek.</p> <p>9. Trek 'n netjiese lyn deur enige werk/rofwerk wat nie nagesien moet word nie.</p> <p>10. In geval jy die bykomende ruimte wat verskaf is, gebruik: 10.1 Skryf die vraagnommer neer 10.2 Laat 'n lyn oop en trek 'n lyn na jou antwoord.</p>



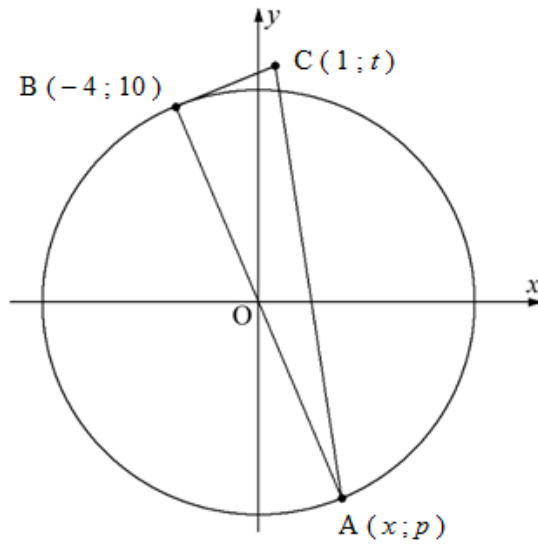
QUESTION/VRAAG 1



	Solution/Oplissing	Marks Punte
1.1		(2)
1.2		(2)
1.3		(2)
1.4		(2)
1.5		(3)
		[11]

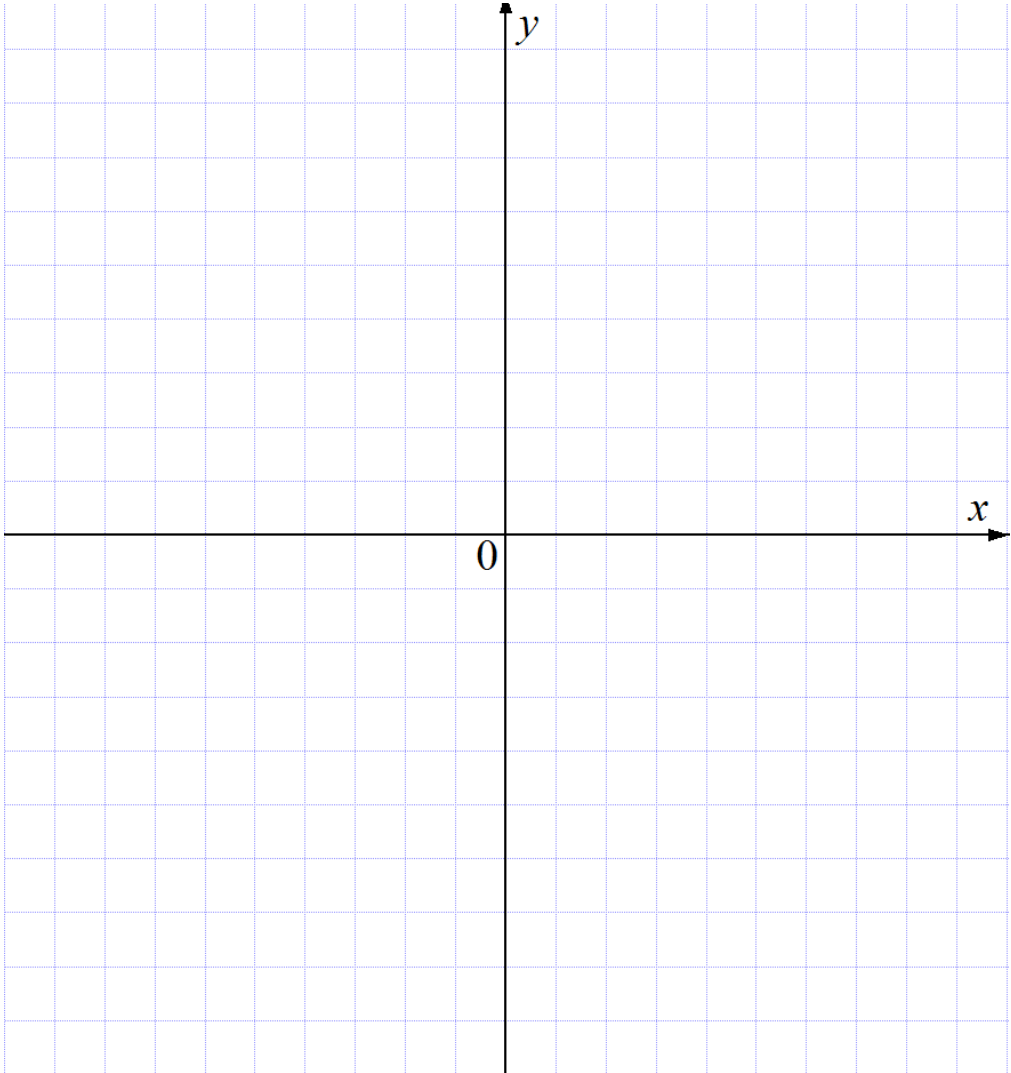


QUESTION/VRAAG 2



	Solution/Oplossing	Marks Punte
2.1.1		(2)
2.1.2		(2)
2.1.3		(2)



	Solution/Oplissing	Marks Punte
2.1.4	<div style="border: 1px solid black; height: 100%; width: 100%;"></div>	(2)
2.1.5	<div style="border: 1px solid black; height: 100%; width: 100%;"></div>	(2)
2.2		(3)
		[13]



QUESTION/VRAAG 3

	Solution/Oplissing	Marks Punte
3.1.1		(2)
3.1.2		(3)
3.2.1		(3)
3.2.2		(1)



	Solution/Oplissing	Marks Punte
3.2.3		
3.3		
		[16]

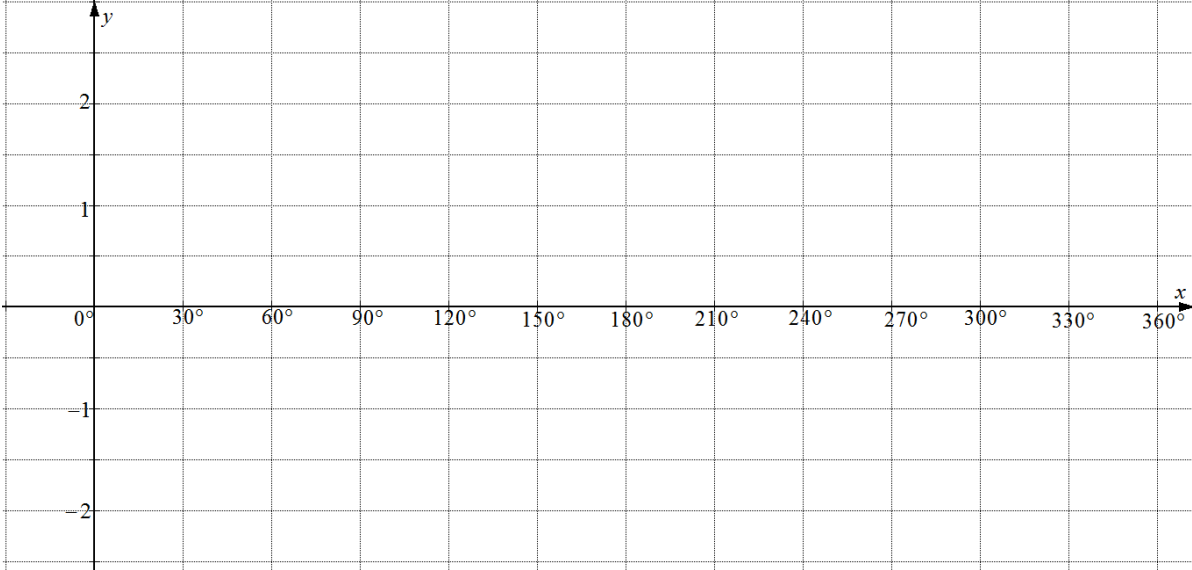


QUESTION/VRAAG 4

	Solution/Oplissing	Marks Punte
4.1		(1)
4.2		(7)
4.3		(4)
		[12]

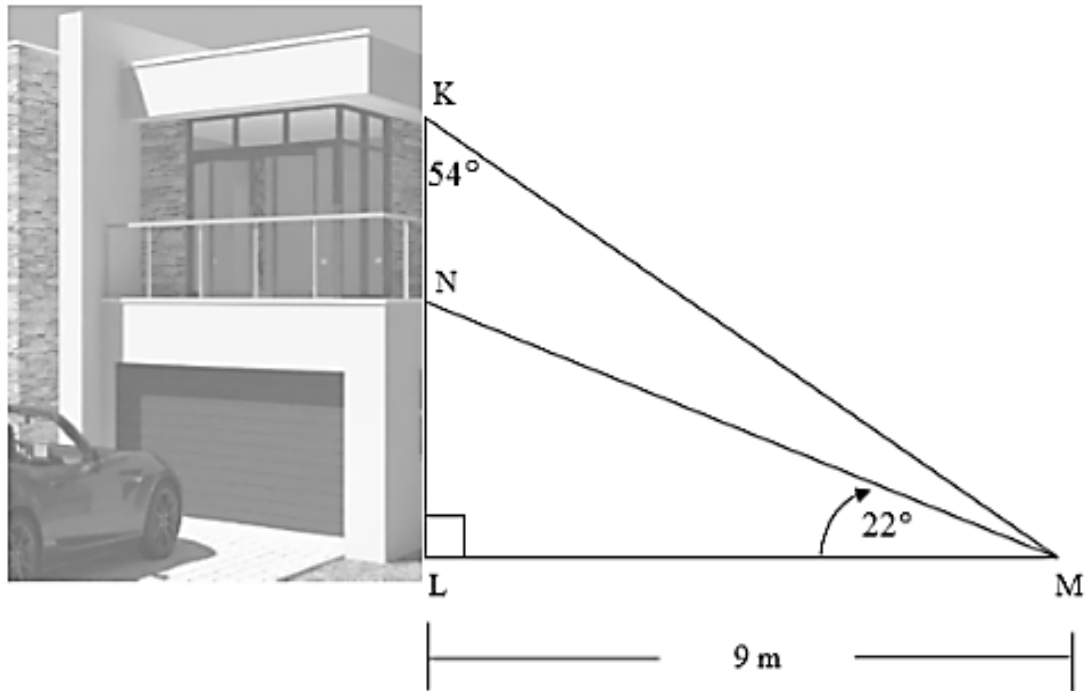


QUESTION/VRAAG 5

	Solution/Oplissing	Marks Punte
5.1		(7)
5.2	<hr/> <hr/> <hr/>	(2)
5.3	<hr/> <hr/> <hr/>	(1)
5.4.1	<hr/> <hr/> <hr/> <hr/>	(2)
5.4.2	<hr/> <hr/> <hr/> <hr/>	(2)
		[14]

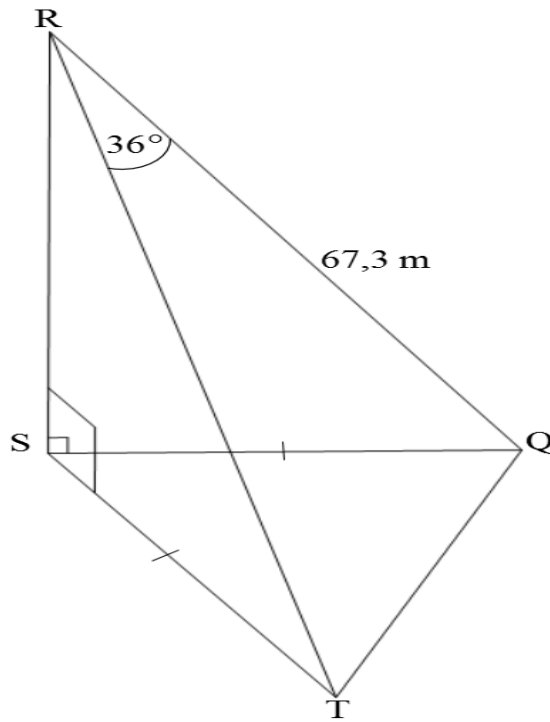


QUESTION/VRAAG 6



	Solution/Oplissing	Marks Punte
6.1.1		(2)
6.1.2		(3)





6.2		
	(4)	
	[9]	

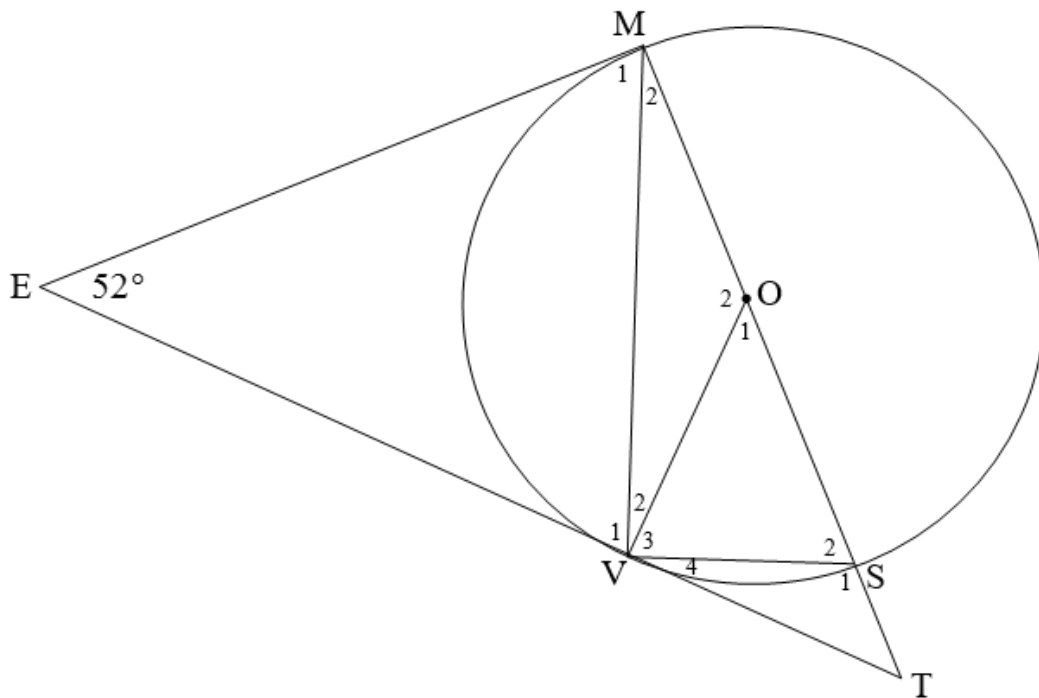


Give reasons for your statements in QUESTIONS 7, 8 and 9.
 Verskaf redes vir jou bewerings in VRAAG 7, 8 en 9.

QUESTION/VRAAG 7

	Solution/Oplissing	Marks Punte
7.1		(1)

7.2



	Solution/Oplissing	Marks Punte
7.2.1		(1)
7.2.2(a)		(2)
7.2.2(b)		(2)



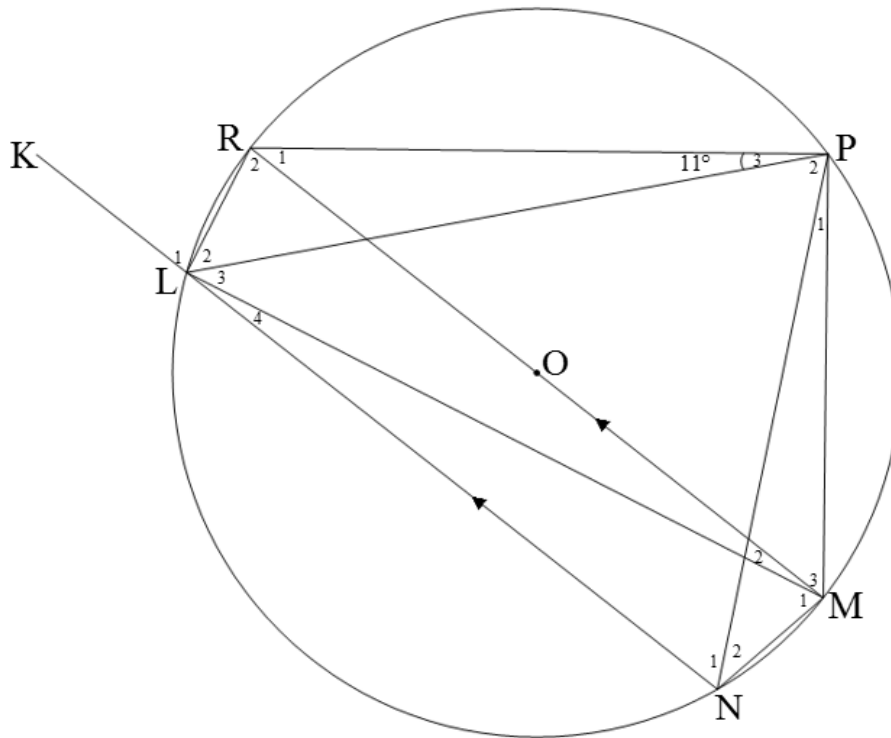
	Solution/Oplossing	Marks Punte
7.2.2(c)		(3)
7.2.2(d)		(3)
7.2.2(e)		(2)
		[14]



QUESTION/VRAAG 8

	Solution/Oplissing	Marks Punte
8.1		(1)

8.2



	Solution/Oplissing	Marks Punte
8.2.1		(1)
8.2.2		(4)



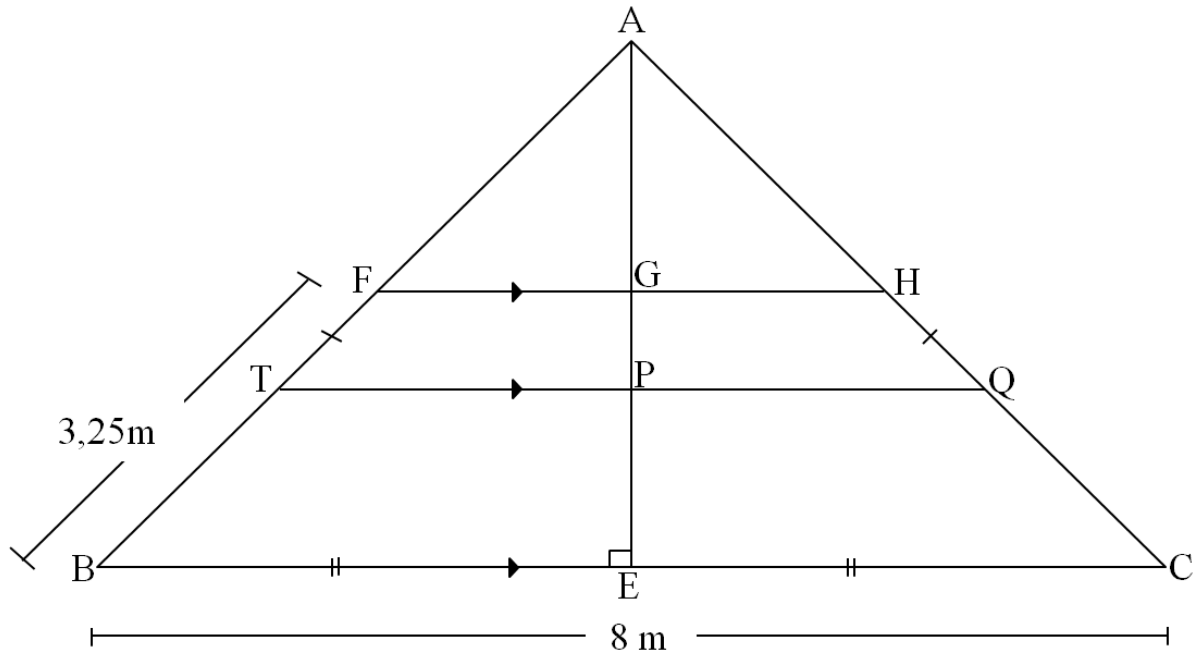
	Solution/Oplossing	Marks Punte
8.2.3		(2)
8.2.4		(4)
8.2.5		(2)
		[14]



QUESTION/VRAAG 9

	Solution/Oplissing	Marks Punte
9.1		(1)

9.2



	Solution/Oplissing	Marks Punte
9.2.1		(1)
9.2.2		(1)
9.2.3(a)		(2)

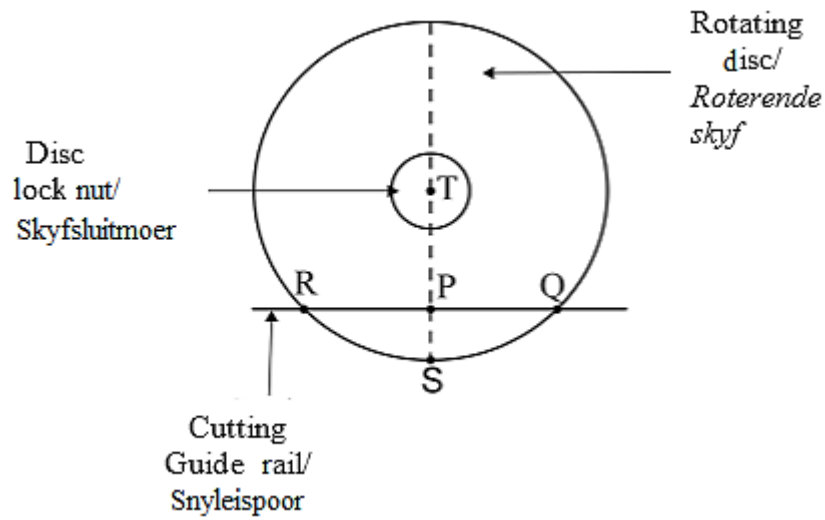


	Solution/Oplossing	Marks Punte
9.2.3(b)		(3)
9.2.4		(3)
		[11]



QUESTION/VRAAG 10

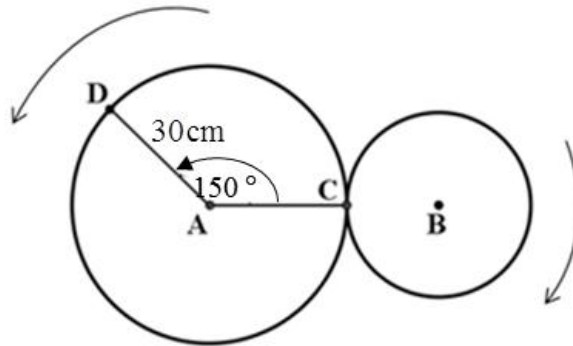
10.1



	Solution/Oplissing	Marks Punte
10.1.1		(4)
10.1.2		(4)



10.2

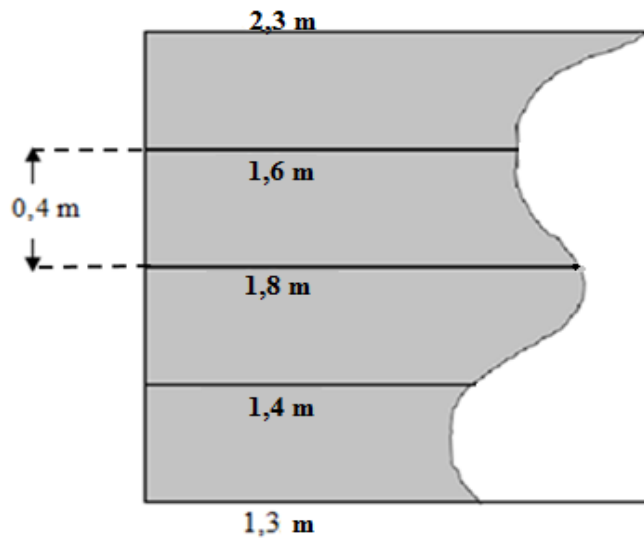


	Solution/Oplissing	Marks Punte
10.2.1		(1)
10.2.2		(3)
10.2.3		(3)
10.2.4		(4)
		[19]



QUESTION/VRAAG 11

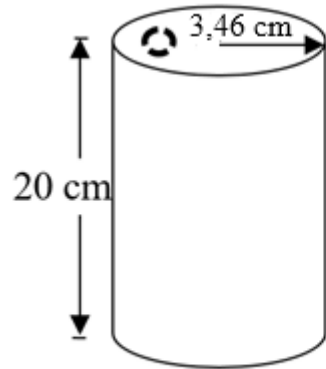
11.1



	Solution/Oplissing	Marks Punte
11.1.1		(4)
11.1.2		(4)



11.2



Cylindrical bottle/Silindriese bottel

	Solution/Oplissing	Marks Punte
11.2.1		(4)
11.2.2		(5)
		[17]

TOTAL/TOTAAL: 150



