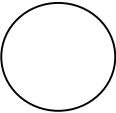




SC/NSC Answer Book
SS/NSS Antwoordeboek

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.

| 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. <i>Skryf jou eksamennommer en sentrumnummer duidelik in die ruimtes verskaf en plak jou stafieskodeplakker in die ruimte verskaf.</i> |
| 2. Remember that your own name (or the name of your school) may NOT appear anywhere on or in this answer book. | 2. <i>Onthou dat jou eie naam (of die naam van jou skool) NIE op of in hierdie antwoordeboek mag voorkom NIE.</i> |
| 3. Answer ALL questions in the spaces provided. | 3. <i>Beantwoord ALLE vrae in die ruimtes wat verskaf is.</i> |
| 4. NO pages may be torn from this answer book. | 4. <i>GEEN bladsye mag uit hierdie antwoordeboek geskeur word NIE.</i> |
| 5. Read the instructions printed on your timetable carefully as well as any other instructions which may be given in each question paper. | 5. <i>Lees die instruksies, wat op jou eksamenrooster gedruk is, sorgvuldig deur, asook enige ander instruksies wat op elke vraestel gegee word.</i> |
| 6. Candidates may NOT retain an answer book or remove it from the examination room. | 6. <i>GEEN antwoordeboek mag deur die kandidaat behou of uit die eksamenlokaal verwyder word NIE.</i> |
| 7. Answers must be written in black/blue ink as distinctly as possible. Do NOT write in the margins. | 7. <i>Skryf die antwoorde so duidelik moontlik met swart/blou ink. Laat die kantlyne oop.</i> |
| 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. <i>Skryf die nommers van die vrae wat jy beantwoord het op die voorblad van die antwoordeboek waar die punte aangebring word.</i> |
| 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. <i>In geval jy bykomende ruimte benodig vir jou antwoorde:</i> 9.1 <i>Gebruik die bykomende ruimte wat aan die einde van die antwoordeboek verskaf word.</i> 9.2 <i>As 'n vraag in die bykomende ruimte beantwoord word, dui duidelik die vraagnommer in die kolom aan die LK aan.</i> 9.3 <i>Trek 'n lyn na elke antwoord.</i> |
| 10. Draw a neat line through any work/rough work that must not be marked. | 10. <i>Trek 'n netjiese lyn deur enige werk/rofwerk wat nie nagesien moet word nie.</i> |

QUESTION/VRAAG 1

| TIME TAKEN (t) (IN MINUTES)/ <i>TYD GENEEM (t)</i> (IN MINUTE) | NUMBER OF CHILDREN/ <i>GETAL</i> 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) |

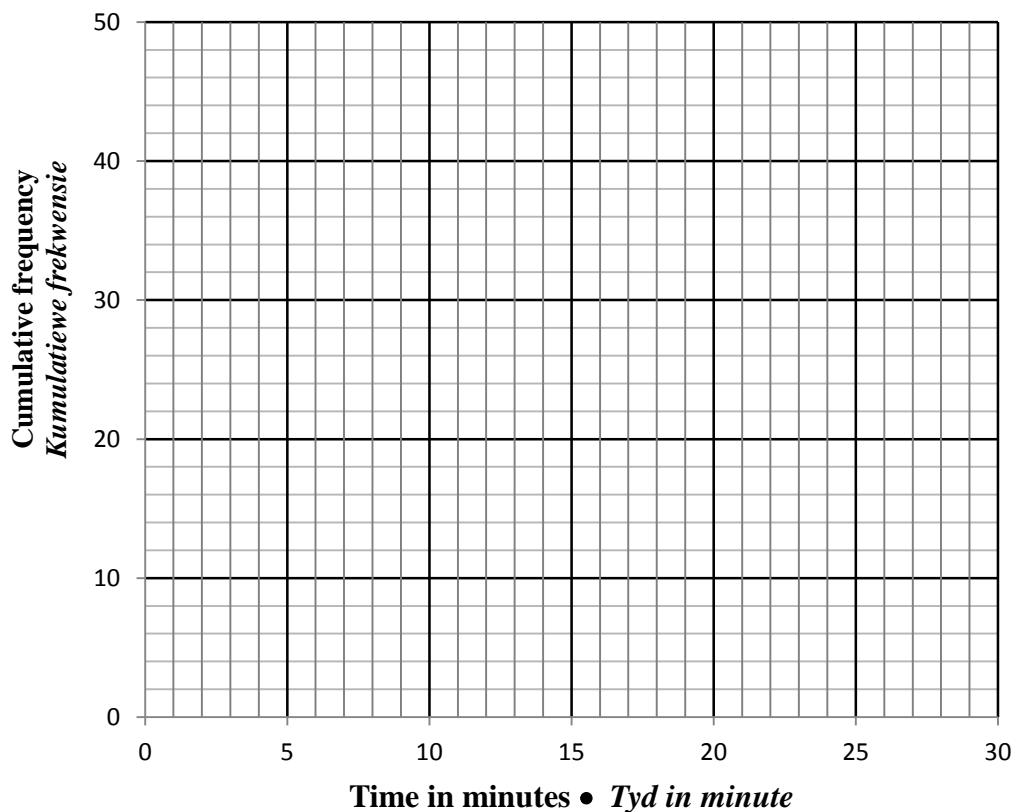
1.3

| Time in minutes (<i>t</i>) <i>Tyd in minute (t)</i> | Number of children <i>Getal kinders</i> | Cumulative frequency <i>Kumulatiewe frekwensie</i> |
|---|---|--|
| $2 < t \leq 6$ | 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)

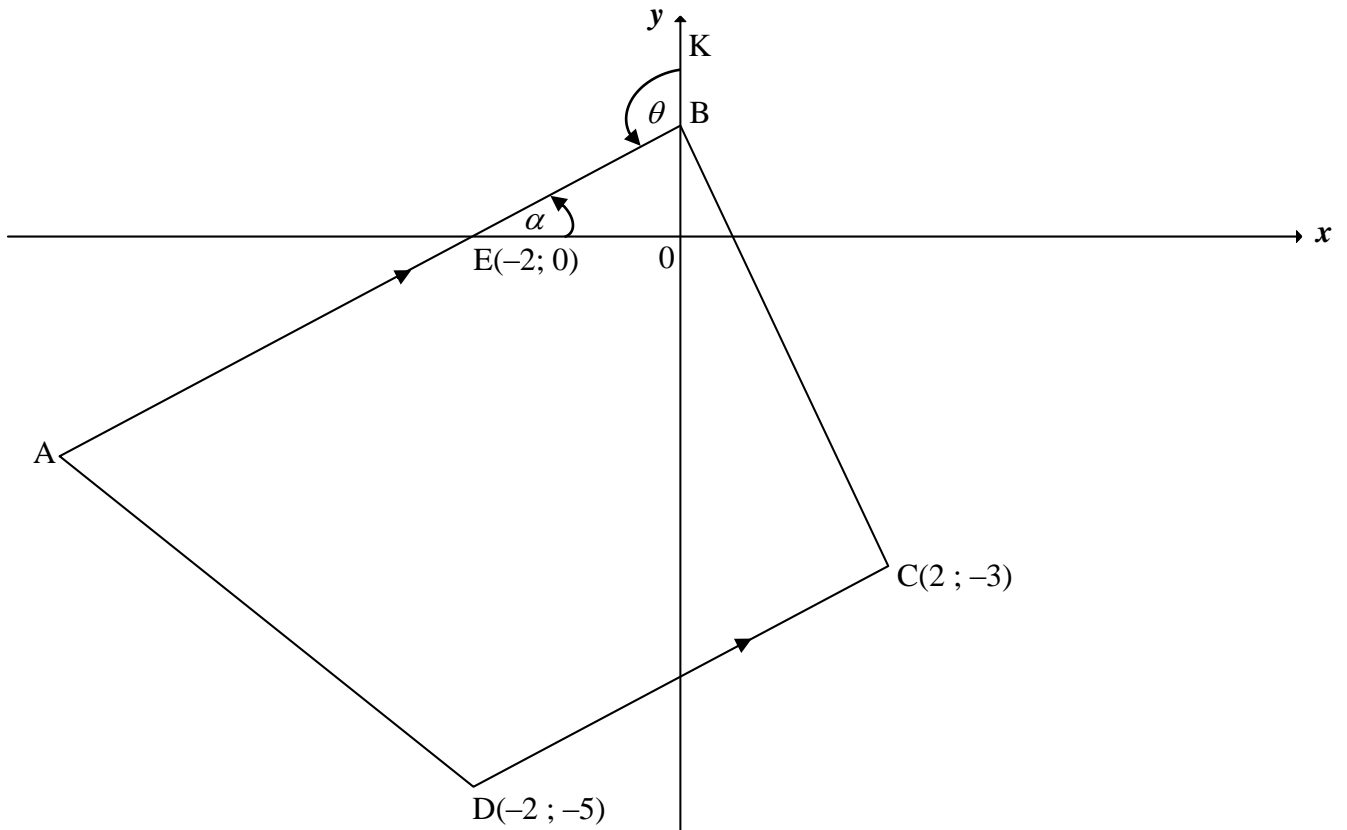
[10]

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/Oplissing | Marks Punte |
|-------|---------------------------|------------------------|
| 2.1 | | (3) |
| | | |
| | | |
| | | |
| | | |
| | | |
| 2.2.1 | | (1) |
| | | |
| | | |
| 2.2.2 | | (2) |
| | | |
| | | |
| | | |
| | | |
| | | |
| 2.3.1 | | (2) |
| | | |
| | | |
| | | |
| 2.3.2 | | (2) |
| | | |
| | | |
| | | |
| | | [10] |

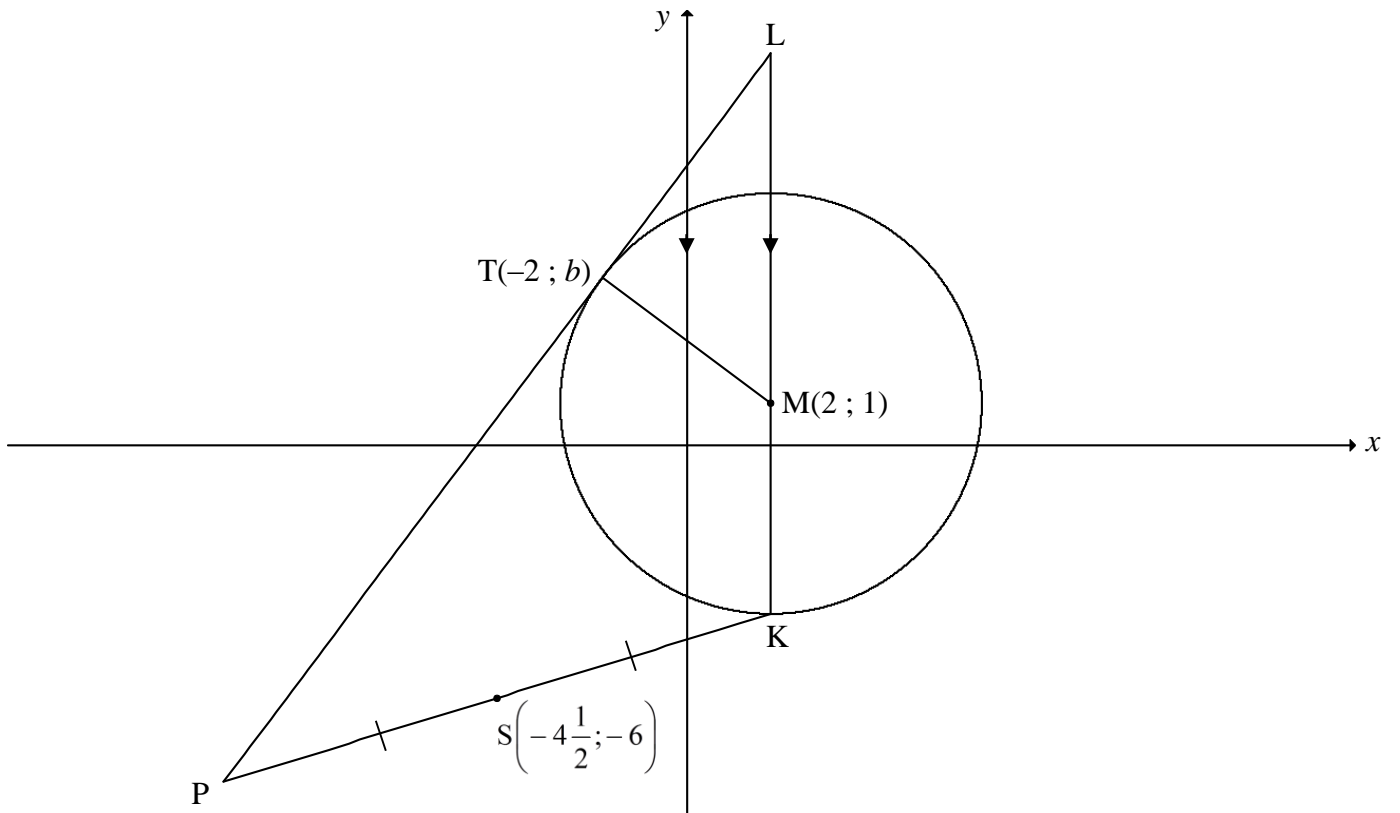
QUESTION/VRAAG 3



| | Solution/Oplissing | 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/Oplissing | 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/Oplissing | Marks Punte |
|-------|---------------------------|------------------------|
| 5.1.1 | | (1) |
| 5.1.2 | | (1) |
| 5.2 | | (5) |

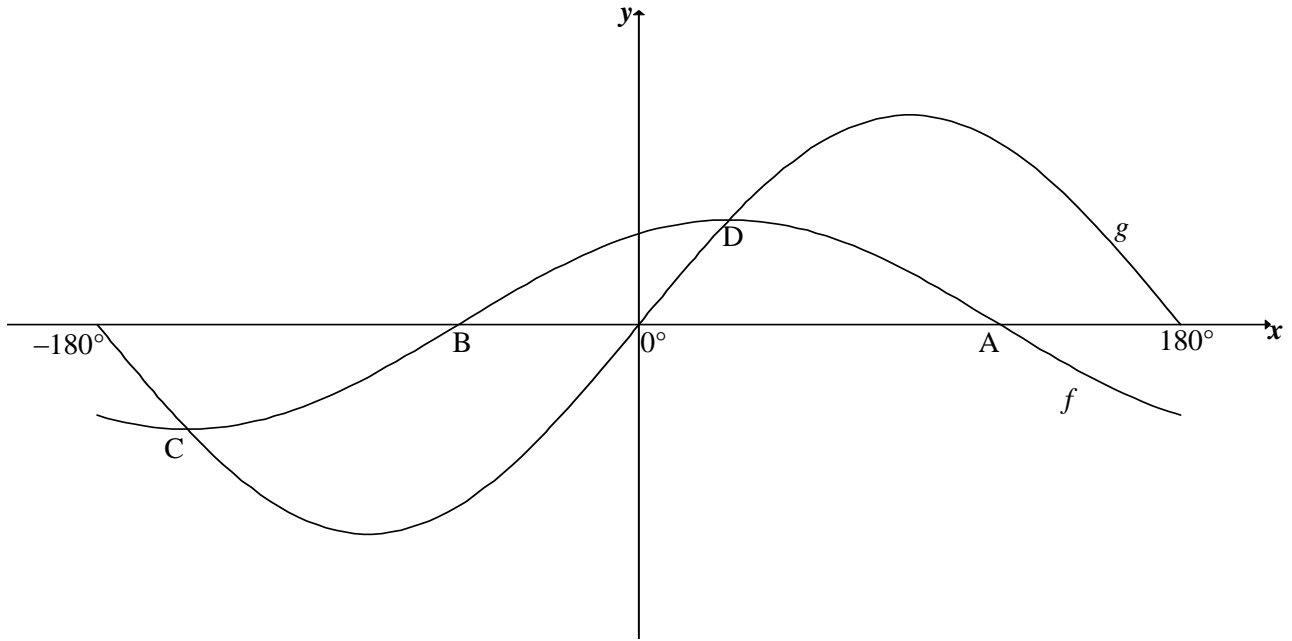
| | Solution/Oplossing | Marks Punte |
|-----|---------------------------|------------------------|
| 5.3 | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | (5) |
| | | [12] |

QUESTION/VRAAG 6

| | Solution/Oplossing | Marks Punte |
|-----|---------------------------|------------------------|
| 6.1 | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

(6)

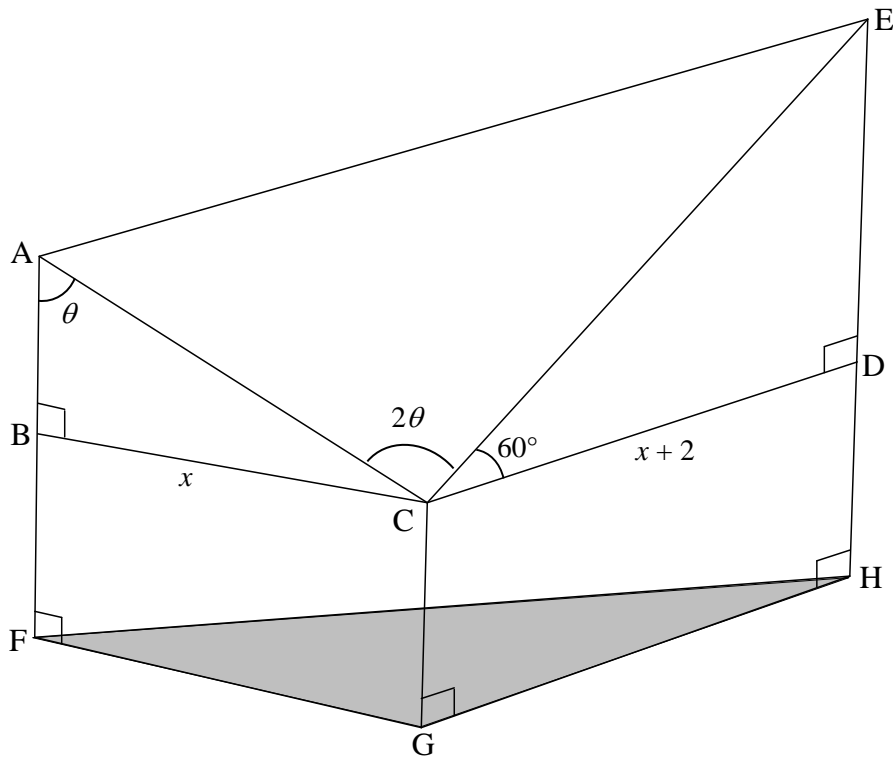
6.2



| | 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



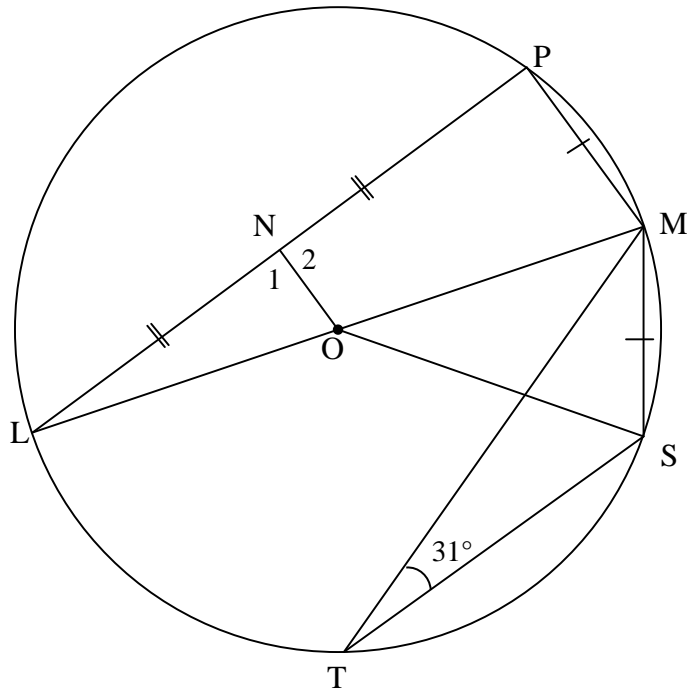
| | Solution/Oplissing | Marks Punte |
|-------|---------------------------|------------------------|
| 7.1.1 | | (2) |
| | | |
| | | |
| | | |
| | | |
| 7.1.2 | | (2) |
| | | |
| | | |
| | | |
| | | |

| | 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.

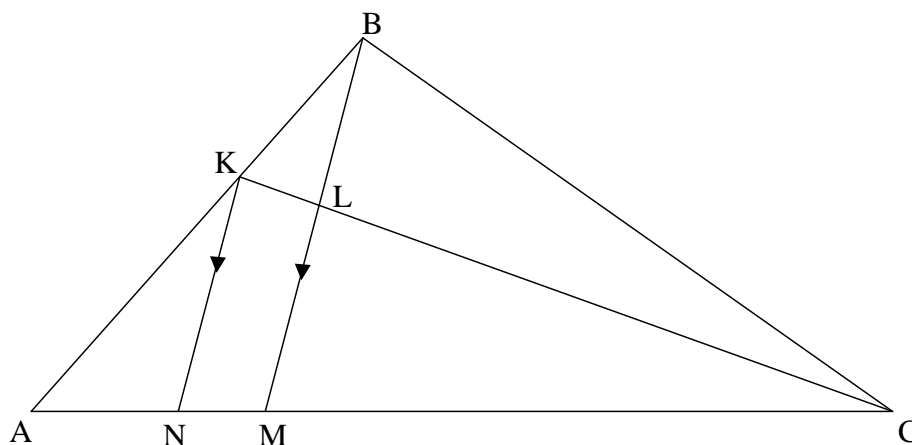
QUESTION/VRAAG 8

8.1



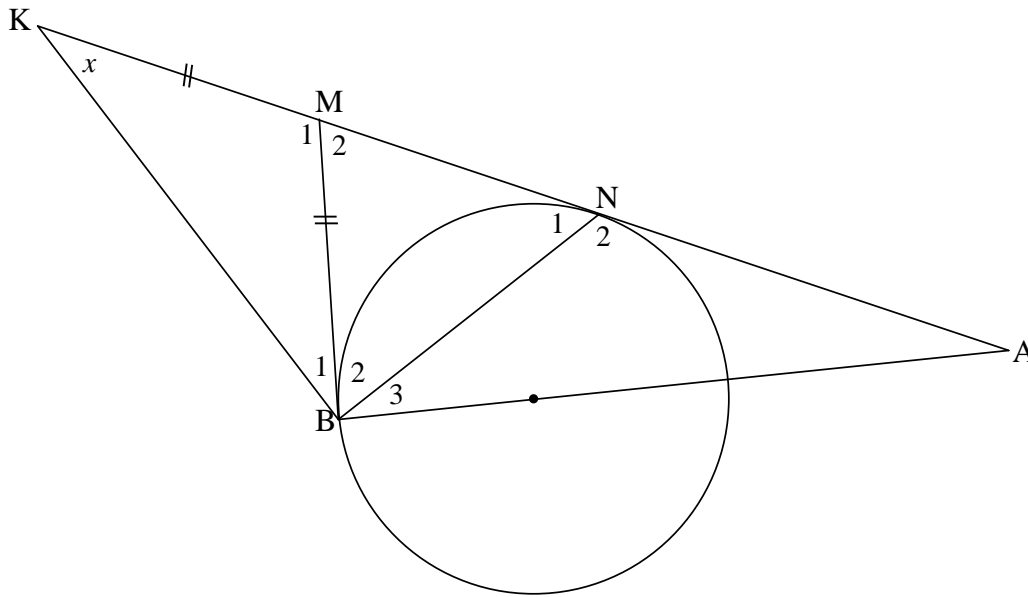
| | Solution/Oplissing | Marks Punte |
|----------|---------------------------|------------------------|
| 8.1.1(a) | | (2) |
| | | |
| 8.1.1(b) | | (2) |
| | | |
| 8.1.2 | | (4) |
| | | |
| | | |
| | | |
| | | |
| | | |

8.2



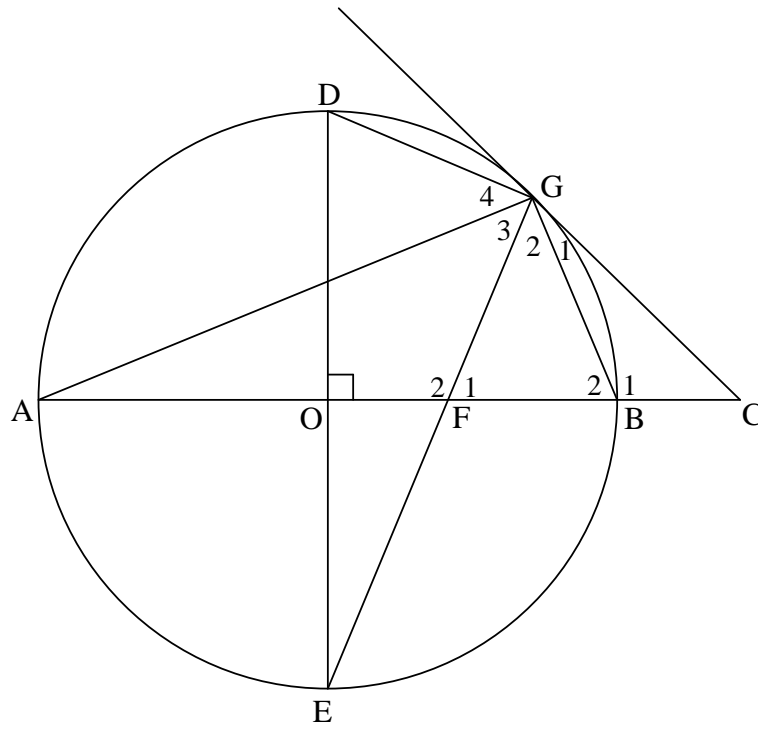
| | Solution/Oplissing | Marks Punte |
|-------|---------------------------|------------------------|
| 8.2.1 | | (2) |
| | | |
| | | |
| | | |
| | | |
| | | |
| 8.2.2 | | (3) [13] |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

QUESTION/VRAAG 9



| | Solution/Oplissing | Marks Punte |
|-----|---------------------------|------------------------|
| 9.1 | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | (6) |
| 9.2 | | |
| | | |
| | | |
| | | |
| | | |
| | | (5) |
| | | [11] |

10.2



| | Solution/Oplissing | Marks Punte |
|-----------|---------------------------|------------------------|
| 10.2.1(a) | | (3) |
| 10.2.1(b) | | (5) |
| 10.2.2(a) | | (3) |

| | Solution/Oplissing | Marks Punte |
|-----------|---------------------------|------------------------|
| 10.2.2(b) | | |
| 10.2.2(c) | | |
| | | [26] |

(5)

(4)

TOTAL/TOTAAL: 150

| RE-MARK/RE-CHECK <i>HERMERK/HERSIEN</i> | | | | |
|---|------------------------------|--|--|---------------------------------------|
| Question <i>Vraag</i> | Marks <i>Punte</i> | | | Initials <i>Voorletters</i> |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| TOTAL TOTAAL | | | | |
| HASH TOTAL KAF- TOTAAL | | | | |