

ANSWER BOOK/ ANTWOORDBOEK

EXAMINATION/ EKSAMEN	NATIONAL SENIOR CERTIFICATE/ NASIONALE SENIOR SERTIFIKAAT
GRADE/ GRAAD	12
DATE/ DATUM	NOVEMBER 2025
SUBJECT/ VAK	MATHEMATICS/ <i>WISKUNDE</i>
PAPER/ VRAESTEL	2
MARK TOTAL/ PUNTETOTAAL	150
DURATION (HOURS)/ TYDSDUUR (UUR)	3
NUMBER OF PAGES/ AANTAL BLADSYE	28



SOUTH AFRICAN COMPREHENSIVE ASSESSMENT INSTITUTE
SUID-AFRIKAANSE KOMPREENSIEWE ASSESSERINGSINSTITUUT

EXAM STICKER/
EKSAMENPLAKKER



INSTRUCTIONS AND INFORMATION

Read the following instructions carefully before answering the questions.

1. This question paper consists of **TEN** questions.
2. Answer **ALL** the questions.
3. Use the **ANSWER BOOK** provided to answer the questions. Additional writing space is available at the end of the answer booklet.
4. Clearly show **ALL** calculations, diagrams, graphs, *et cetera* that you have used in determining your answers.
5. Answers only will **NOT** necessarily be awarded full marks.
6. You may use an approved scientific calculator (non-programmable and non-graphical), unless stated otherwise.
7. If necessary, round off answers to **TWO** decimal places, unless stated otherwise.
8. Diagrams are **NOT** necessarily drawn to scale.
9. An information sheet with formulae is included at the end of the question paper.
10. Write neatly and legibly, in **BLUE** ink only.

INSTRUKSIES EN INLIGTING

Lees die volgende instruksies noukeurig deur voordat jy die vrae beantwoord.

1. *Hierdie vraestel bestaan uit **TIEN** vrae.*
2. *Beantwoord **AL** die vrae.*
3. *Gebruik hierdie **ANTWOORDBOEK** wat voorsien is om die vrae te beantwoord. Addisionele skryfspasie is beskikbaar aan die einde van die antwoordboek.*
4. *Toon **ALLE** berekeninge, diagramme, grafieke, ens. wat jy gebruik het om die antwoord te bepaal duidelik aan.*
5. *Slegs antwoorde sal **NIE** noodwendig volpunte verdien nie.*
6. *Jy mag 'n goedgekeurde wetenskaplike sakrekenaar (nie-programeerbaar en nie-grafies) gebruik, tensy anders vermeld.*
7. *Indien nodig, rond antwoorde af tot **TWEE** desimale plekke, tensy anders vermeld.*
8. *Diagramme is **NIE** noodwendig volgens skaal geteken nie.*
9. *'n Inligtingsblad met formules is aan die einde van die vraestel ingesluit.*
10. *Skryf netjies en leesbaar, slegs in **BLOU** ink.*



QUESTION 1 / VRAAG 1

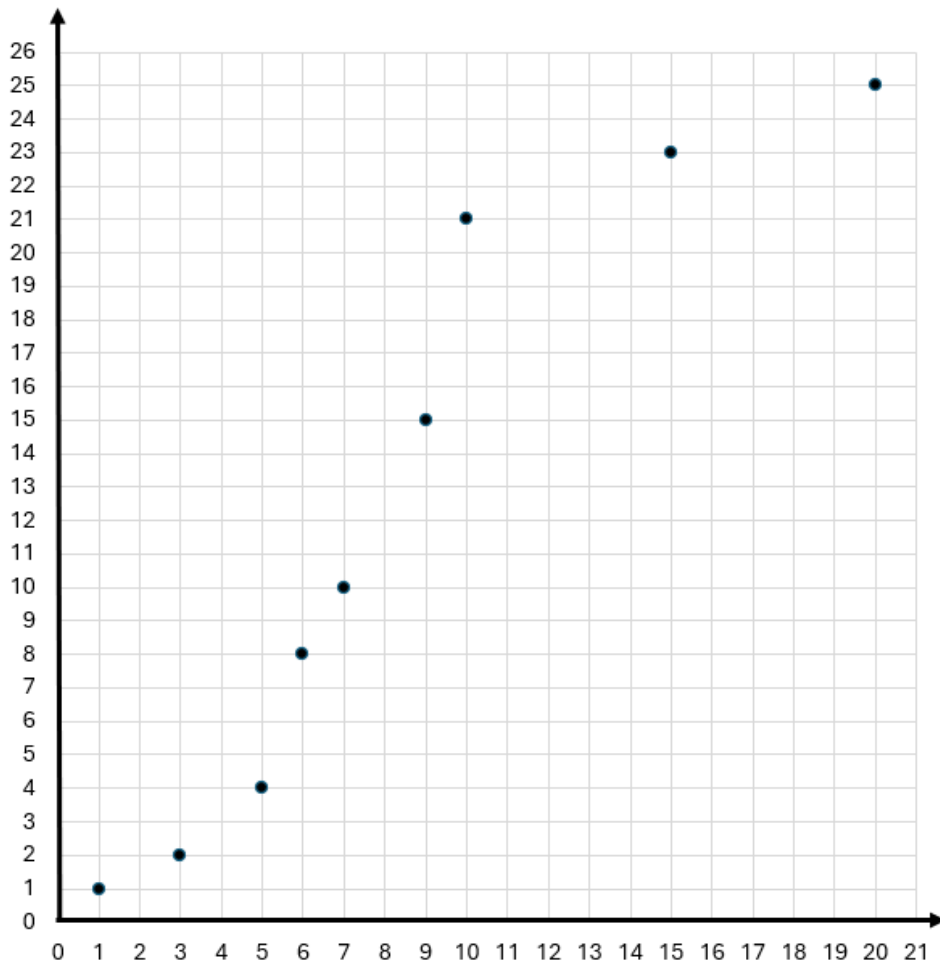
1.1.1

(1)

1.1.2

(2)

1.1.3



(2)



1.1.4

(2)

1.1.5

(2)

1.1.6

(4)



1.1.7

(2)

1.2.1

(4)

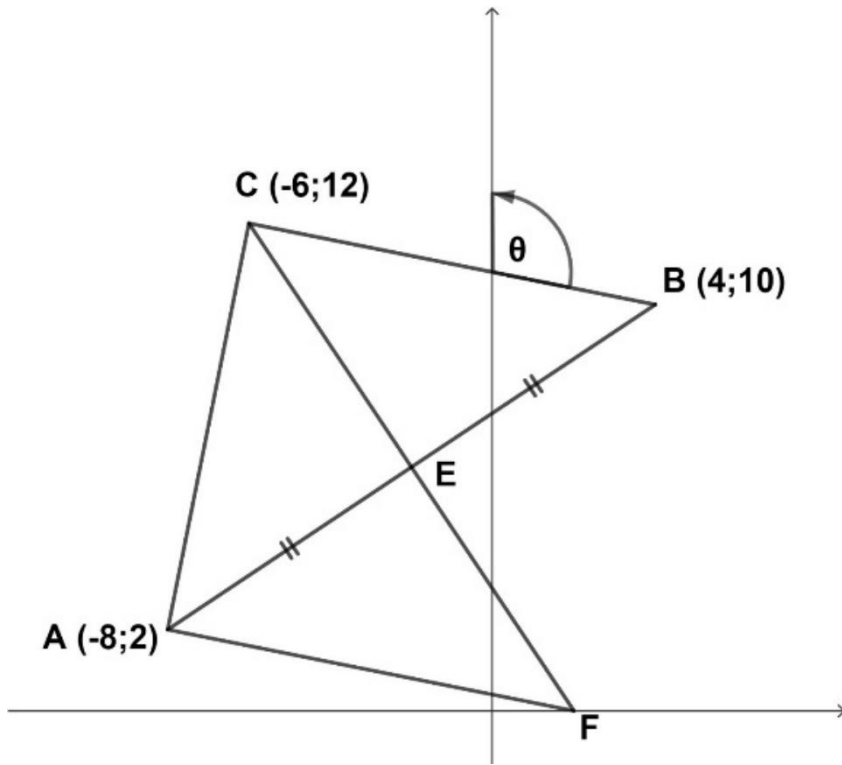
1.2.2

(1)

[20]



QUESTION 2 / VRAAG 2



2.1

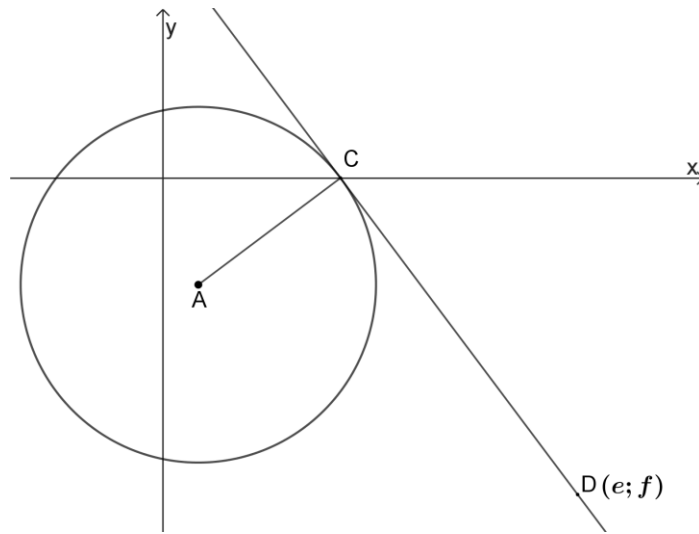
(2)

2.2

(3)



QUESTION 3 / VRAAG 3



3.1.1

(2)

3.1.2

(4)



QUESTION 4 / VRAAG 4

4.1.1

(2)

4.1.2

(4)



QUESTION 5 / VRAAG 5

5.1

(3)

5.2

(4)

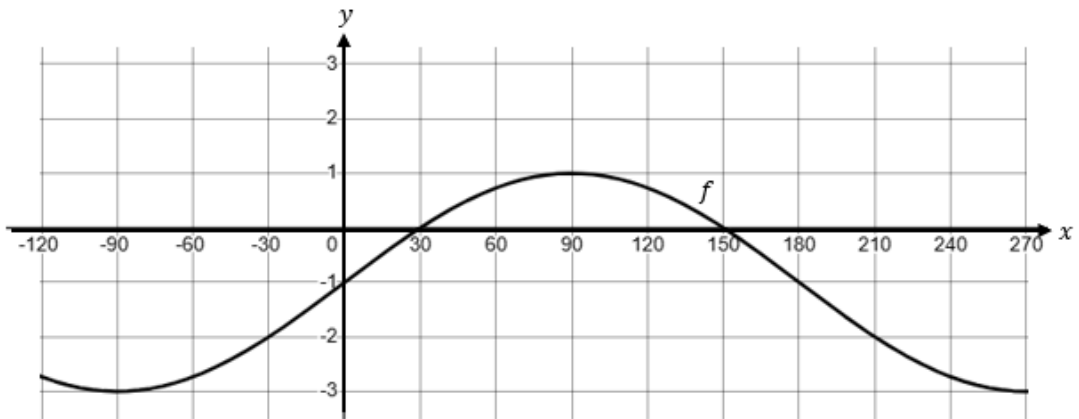


QUESTION 6 / VRAAG 6

6.1

(2)

6.2



(4)

6.3

(1)

6.4

(1)

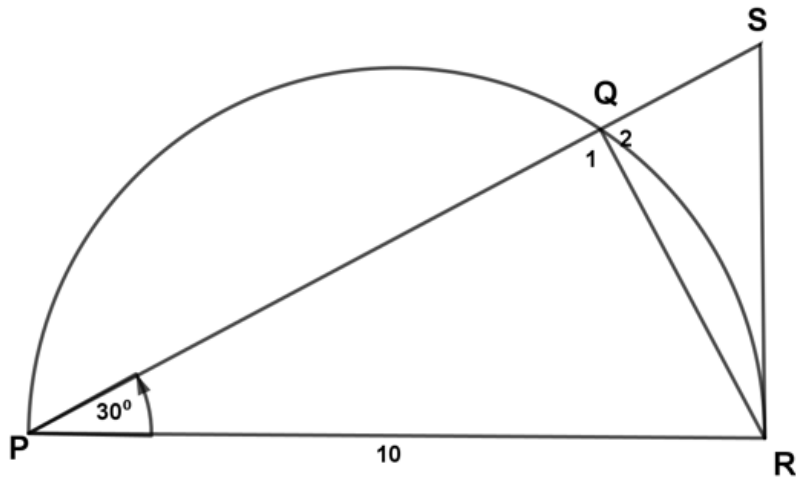
6.5

(2)

[10]



QUESTION 7 / VRAAG 7

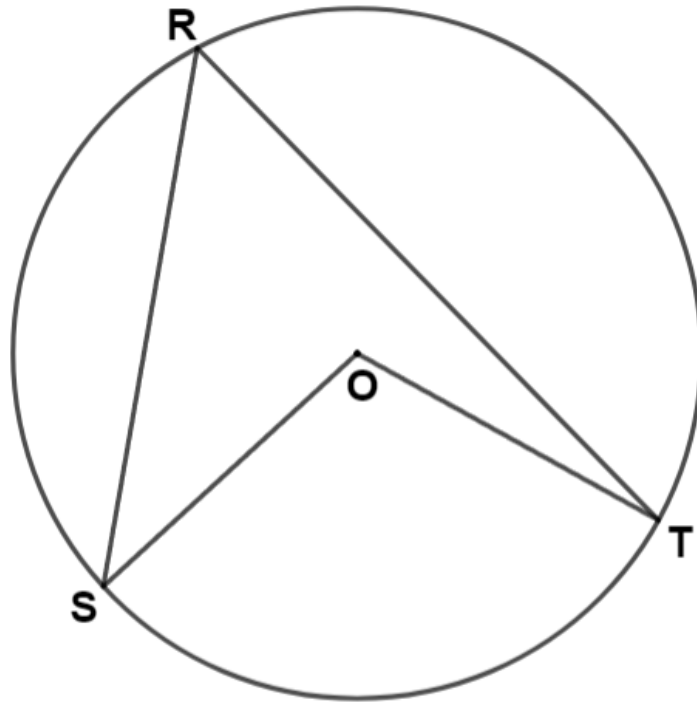


7.1

(7)



QUESTION 8 / VRAAG 8

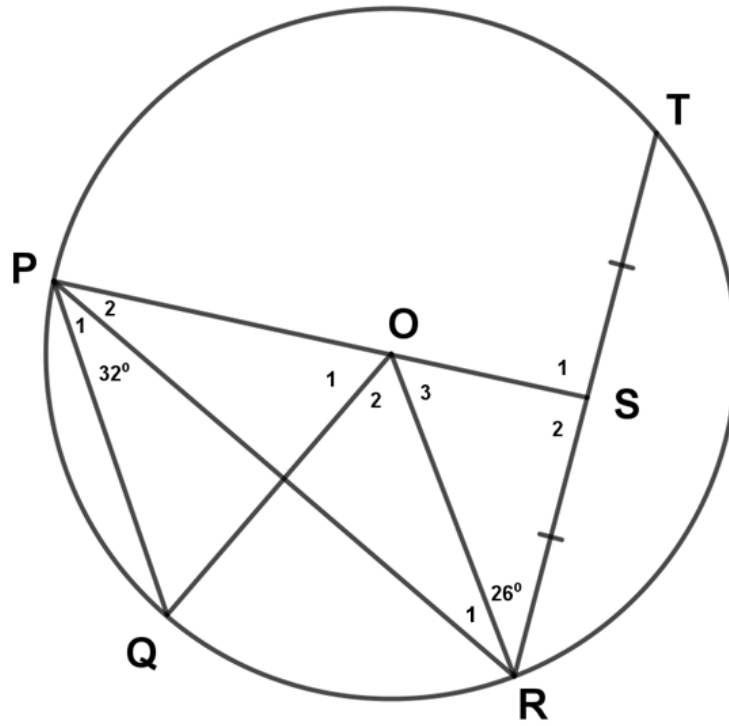


8.1

(5)



8.2



8.2.1

(2)

8.2.2

(3)



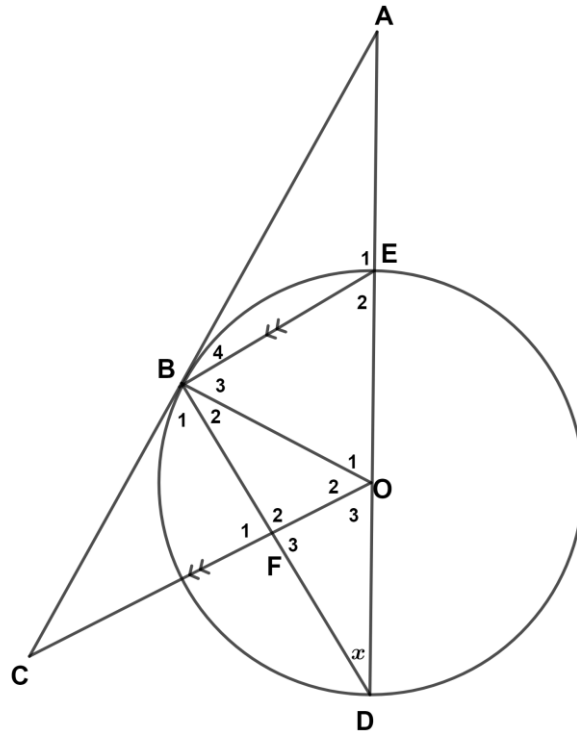
8.3.2

(2)

[19]



QUESTION 9 / VRAAG 9



9.1

(3)

9.2

(3)

