



education

Department:
Education
North West Provincial Government
REPUBLIC OF SOUTH AFRICA

PROVINCIAL ASSESSMENT/ PROVINSIALE ASSESSERING

GRADE 12/GRAAD 12

**MATHEMATICS P2/WISKUNDE V2
JUNE/JUNIE 2025
MARKING GUIDELINES/NASIENRIGLYNE**

MARKS/PUNTE: 150

**These marking guidelines consist of 18 pages.
*Hierdie nasienriglyne bestaan uit 18 bladsye.***

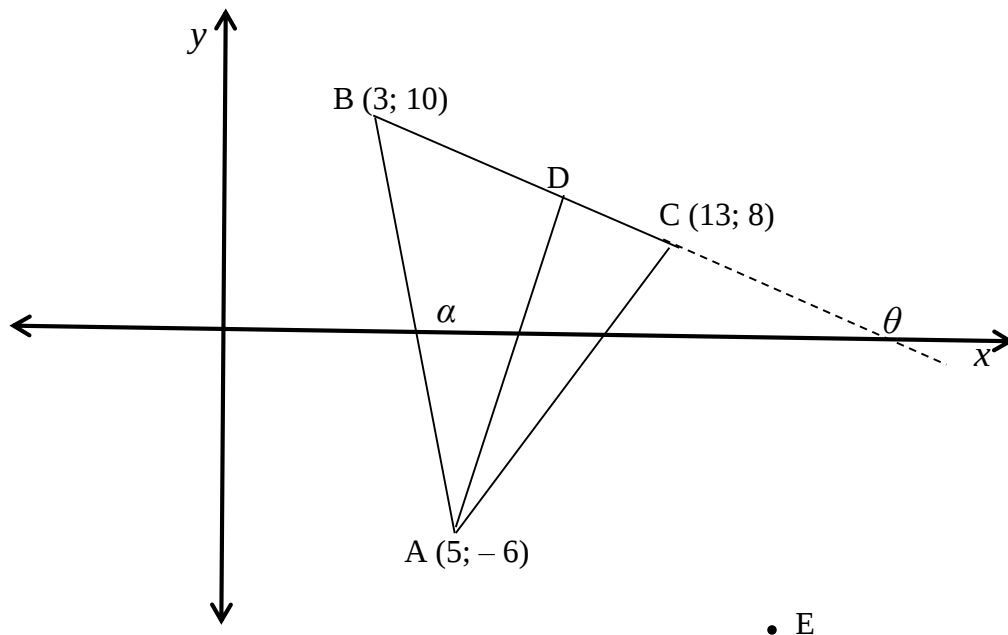
NOTE:

- If a candidate answer a question **TWICE**, only mark the **FIRST** attempt.
- If a candidate has crossed out an attempt of a question and not redone the question, mark the crossed-out version.
- Consistent accuracy applies in **ALL** aspects of the Marking Guidelines. Stop marking at the second calculation error.
- Assuming answer values in order to solve a problem is **NOT** acceptable.

LET WEL:

- As 'n kandidaat 'n vraag **TWEE KEER** beantwoord, sien slegs die **EERSTE** poging na.
- As 'n kandidaat 'n antwoord van 'n vraag doodtrek en nie oordoen nie, sien die doodgetrekte poging na.
- Volgehoue akkuraatheid word in **ALLE** aspekte van die Nasienriglyne toegepas.
Hou op nasien by die tweede berekeningsfout.
- Aanvaar van antwoorde/waardes om 'n probleem op te los, word **NIE** toegelaat nie.

GEOMETRY	
S	A mark for a correct statement/'n Punt vir die korrekte stelling (A statement mark is independent of a reason/'n stelling is onafhanklik van die rede)
R	A mark for a correct reason/'n Punt vir die korrekte rede (A reason mark may only be awarded if the statement is correct/'n rede punt mag slegs toegeken word met korrekte stelling)
S/R	Award a mark if statement AND reason are both correct/ken 'n punt toe as die stelling EN rede beide korrek is

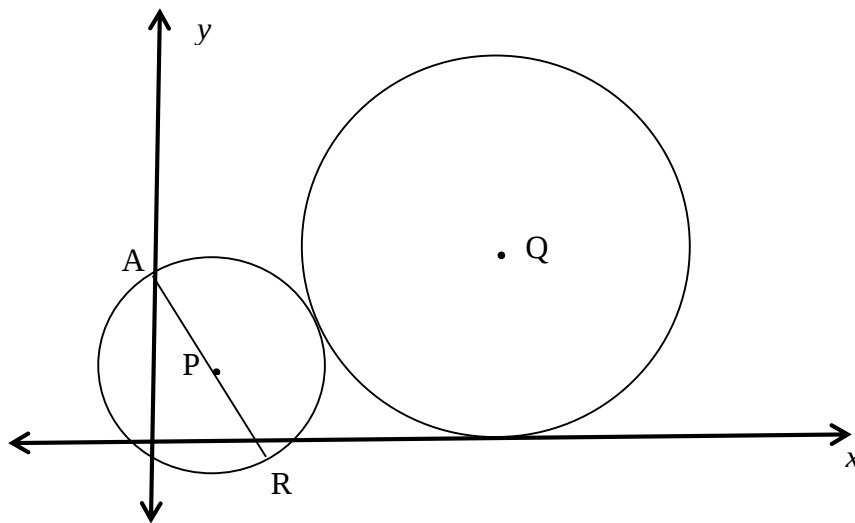
QUESTION/VRAAG 1

1.1	$m_{BC} = \frac{10-8}{3-13}$ $m_{BC} = -\frac{1}{5}$	✓ substitution/vervang ✓ answer/antwoord (2)
1.2	$y - y_1 = m(x - x_1)$ B (3, 10) or C (13; 8)) $y - 10 = -\frac{1}{5}(x - 3)$ or $y - 8 = -\frac{1}{5}(x - 13)$ $y = -\frac{1}{5}x + \frac{53}{5}$ or $y = -\frac{1}{5}x + \frac{53}{5}$	✓ substitution/vervang ✓ answer/antwoord (2)
1.3	$m_{AD} = 5$ $y - y_1 = m(x - x_1)$ A (5; -6) $y + 6 = 5(x - 5)$ $y = 5x - 31$	✓ $m_{AD} = 5$ ✓ substituting/vervang A or C ✓ answer/antwoord (3)
1.4	Midpoint/Middelpunt AC $\left(\frac{x_1 + x_2}{2}; \frac{y_1 + y_2}{2}\right)$ Midpoint/Middelpunt AC $\left(\frac{13+5}{2}; \frac{8-6}{2}\right)$ Midpoint/Middelpunt AC (9; 1)	✓ substitution/vervang ✓ answer/antwoord (2)

1.5	$m_{BC} = -\frac{1}{5}$ $m_{PC} = \frac{11-8}{-2-13} \text{ or } m_{BP} = \frac{11-10}{-2-3}$ $m_{PC} = -\frac{1}{5} \quad m_{BP} = -\frac{1}{5}$ $m_{BC} = m_{BP} \text{ or } m_{CP}$ The points are collinear/Die punte is kollinieêr	✓ substitution/vervanging ✓ gradient/gradiënt ✓ conclusion/gevolgtrekking (3)
1.6	E (15; - 8)	✓ $x = 15$ ✓ $y = -8$ (2)
1.7	$m_{BC} = -\frac{1}{5}$ $\tan \theta = -\frac{1}{5}$ $\theta = 168,69^\circ$ $m_{AB} = \frac{10+6}{3-5}$ $m_{AB} = -8$ $\tan \alpha = -8$ $\alpha = 97,13^\circ$ $\hat{A}BC = 168,69^\circ - 97,13^\circ$ $\hat{A}BC = 71,56^\circ$	✓ $\tan \theta = -\frac{1}{5}$ ✓ $\theta = 168,69^\circ$ ✓ $m_{AB} = -8$ ✓ $\tan \alpha = -8$ ✓ $\alpha = 97,13^\circ$ ✓ answer/antwoord (6)

[20]

QUESTION/VRAAG 2



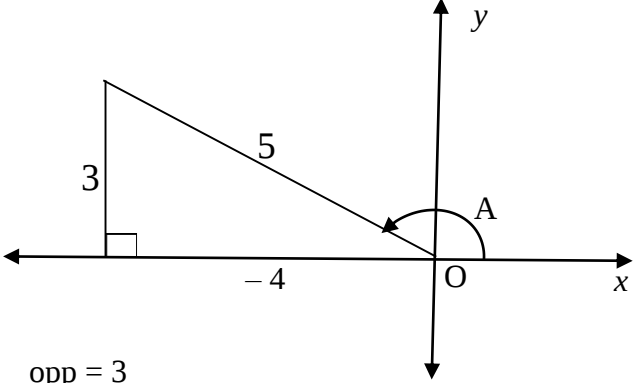
2.1	$(x-15)^2 + (y-m)^2 = 64$ x-int (15; 0) $(15-15)^2 + (0-m)^2 = 64$ $m^2 = 64$ $m = 8$ OR/OF $r^2 = 64$ $r = 8$ $\therefore m = 8$ OR/OF $\sqrt{(m-3)^2 + (15-3)^2} = 5+8$ $m^2 - 6m + 9 + 144 = 169$ $m^2 - 6m - 16 = 0$ $(m-8)(m+2) = 0$ $m = 8 \quad \text{or} \quad m \neq -2$	✓ substituting x-int/vervang x-afsnit ✓ simplification/vereenvoudiging ✓ answer/antwoord ✓ method/metode ✓ $r = 8$ ✓ answer/antwoord ✓ method/metode ✓ std form/standaardvorm ✓ answer/antwoord (3)
2.2	P (3; 3) Q (15; 8)	✓ P (3; 3) ✓ Q (15; 8) (2)
2.3	$PQ = \sqrt{(8-3)^2 + (15-3)^2}$ $PQ = 13$ OR/OF $PQ = 8 + 5$ $= 13$ Answer only/slegs antwoord : full marks	✓ substitution/vervanging ✓ answer/antwoord ✓ substitution/vervanging ✓ answer/antwoord (2)

2.4	$(x-3)^2 + (y-3)^2 = 25$ $(x-3)^2 + (y-3)^2 = 25$ $(0-3)^2 + (y-3)^2 = 25$ $9 + (y-3)^2 = 25 \quad y^2 - 6y + 9 + 9 = 25$ $(y-3)^2 = 16 \quad y^2 - 6y - 7 = 0$ $y-3 = \pm 4 \quad (y-7)(y+1) = 0$ $y = 7 \quad \text{or} \quad y = -1$ $A(0; 7)$	$\checkmark x = 0$ $\checkmark$ std form/vorm $\checkmark$ answer/antwoord (3)
2.5	$m_{AP} = \frac{7-3}{0-3}$ $m_{AP} = -\frac{4}{3}$ $\therefore m_{\tan} = \frac{3}{4}$ $y-7 = \frac{3}{4}(x-0)$ $y = \frac{3}{4}x + 7$	$\checkmark m_{AP} = -\frac{4}{3}$ $\checkmark m_{\tan} = \frac{3}{4}$ $\checkmark$ substitution/vervanging $\checkmark$ answer/antwoord (4)
2.6	$P(3; 3) \quad R(2; -3)$ radius = 5 $PR = \sqrt{(-3-3)^2 + (2-3)^2}$ $= \sqrt{37}$ $= 6,08$ radius < PR $\therefore P$ lies outside circle P	$\checkmark$ radius = 5 $\checkmark PR = 6,08$ $\checkmark$ radius < PR $\checkmark$ conclusion/gevolgtrekking (4)
2.7	$3 = \frac{0+x_2}{2} \quad 3 = \frac{7+y_2}{2}$ $x_2 = 6 \quad y_2 = -1$ $R(6; -1)$ $y = \frac{3}{4}x + k$ $-1 = \frac{3}{4}(6) + c$ $c = -\frac{11}{2}$ $\therefore -\frac{11}{2} < k < 7$	$\checkmark x = 6$ $\checkmark y = -1$ $\checkmark$ substitution/vervanging $\checkmark c = -\frac{11}{2}$ $\checkmark \checkmark$ answer/antwoord (6)

[24]

QUESTION/VRAAG 3

3.1	$\frac{\sin(90^\circ + x) \cdot \tan(360^\circ + x)}{\cos 240^\circ \cdot \tan 225^\circ}$ $= \frac{(\cos x) \cdot \tan x}{\cos(180^\circ + 60^\circ) \cdot \tan(180^\circ + 45^\circ)}$ $= \frac{\cos x \left(\frac{\sin x}{\cos x} \right)}{-\cos 60^\circ \cdot \tan 45^\circ}$ $= \frac{\sin x}{-\frac{1}{2} \times 1}$ $= -2 \sin x$	✓ $\cos x$ ✓ $\tan x$ ✓ $-\cos 60^\circ$ ✓ $\tan 45^\circ$ ✓ $\frac{\sin x}{\cos x}$ ✓ $-\frac{1}{2}$ and 1 ✓ answer/antwoord (7)
3.2.1	$\sin 223^\circ = \sin(180^\circ - 43^\circ)$ $= -\sin 43^\circ$ $= -a$	✓ $-\sin 43^\circ$ ✓ answer/antwoord (2)
3.2.2	$\sin 68,5^\circ = \cos 21,5^\circ$ $\cos 43^\circ = \cos 2(21,5^\circ)$ $\cos 43^\circ = 2 \cos^2 21,5^\circ - 1$ $\sqrt{1-a^2} = 2 \cos^2 21,5^\circ - 1$ $2 \cos^2 21,5^\circ = \sqrt{1-a^2} + 1$ $\cos^2 21,5^\circ = \frac{\sqrt{1-a^2} + 1}{2}$ $\cos 21,5^\circ = \pm \sqrt{\frac{\sqrt{1-a^2} + 1}{2}}$	✓ $\cos 21,5^\circ$ ✓ $\cos 2(21,5^\circ)$ ✓ $2 \cos^2 21,5^\circ - 1$ ✓ $\sqrt{1-a^2}$ ✓ answer/antwoord (5)

3.3	 opp = 3 $\sin(A + 30^\circ) = \sin A \cos 30^\circ + \cos A \sin 30^\circ$ $= \left(\frac{3}{5}\right)\left(\frac{\sqrt{3}}{2}\right) + \left(-\frac{4}{5}\right)\left(\frac{1}{2}\right)$ $= \frac{-4 + 3\sqrt{3}}{10}$	✓ correct sketch/korrekte diagram ✓ opp = 3/teenoorst = 3 ✓ $\sin A \cos 30^\circ + \cos A \sin 30^\circ$ ✓ substitution/vervanging ✓ answer/antwoord (5)
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[19]

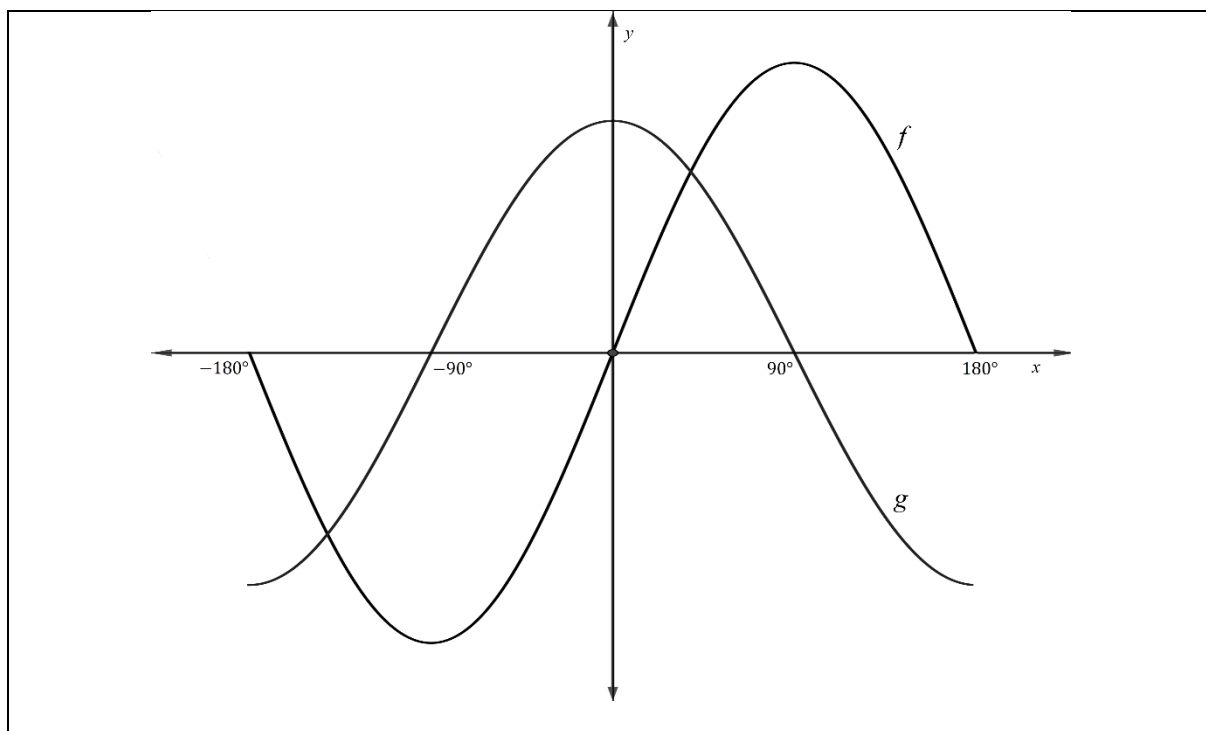
QUESTION/VRAAG 4

4.1.1	$\frac{\sin 2x - \tan x}{\cos 2x} = \tan x$ $\text{LHS} = \frac{\sin 2x - \tan x}{\cos 2x}$ $= \frac{2 \sin x \cos x - \frac{\sin x}{\cos x}}{2 \cos^2 x - 1}$ $= \frac{2 \sin x \cos^2 x - \sin x}{\cos x} \div (2 \cos^2 x - 1)$ $= \frac{\sin x (2 \cos^2 x - 1)}{\cos x} \times \frac{1}{2 \cos^2 x - 1}$ $= \tan x$ $\text{LHS} = \text{RHS}$	✓ $2 \sin x \cos x$ ✓ $\frac{\sin x}{\cos x}$ ✓ $2 \cos^2 x - 1$ ✓ LCM/KGV ✓ common factor/gem faktor (5)
4.1.2	$\frac{\sin 120^\circ - \tan 60^\circ}{\cos 120^\circ} = \tan 60^\circ$ $= \sqrt{3}$	✓ $\tan 60^\circ$ ✓ answer/antwoord (2)

4.2	$\cos 24^\circ \cdot \cos x + \sin 24^\circ \cdot \sin x = \sin 2x$ $\cos(24^\circ - x) = \sin 2x$ $\cos(24^\circ - x) = \cos(90^\circ - 2x)$ $24^\circ - x = \pm(90^\circ - 2x) + k \cdot 360^\circ$ $24^\circ - x = 90^\circ - 2x + k \cdot 360^\circ$ $x = 66^\circ + k \cdot 360^\circ; k \in \mathbb{Z}$ or $24^\circ - x = -(90^\circ - 2x) + k \cdot 360^\circ$ $24^\circ - x = -90^\circ + 2x + k \cdot 360^\circ$ $-3x = -114^\circ - k \cdot 360^\circ$ $x = 38^\circ - k \cdot 120^\circ; k \in \mathbb{Z}$ OR/OF $\cos 24^\circ \cdot \cos x + \sin 24^\circ \cdot \sin x = \sin 2x$ $\cos(24^\circ - x) = \sin 2x$ $\cos(24^\circ - x) = \cos(90^\circ - 2x)$ $90^\circ - 2x = \pm(24^\circ - x) + k \cdot 360^\circ$ $90^\circ - 2x = 24^\circ - x + k \cdot 360^\circ$ $-x = -66^\circ + k \cdot 360^\circ$ $x = 66^\circ - k \cdot 360^\circ; k \in \mathbb{Z}$ or/OF $90^\circ - 2x = -(24^\circ - x) + k \cdot 360^\circ$ $90^\circ - 2x = -24^\circ + x + k \cdot 360^\circ$ $-3x = -114^\circ + k \cdot 360^\circ$ $x = 38^\circ - k \cdot 120^\circ; k \in \mathbb{Z}$ OR/OF $\cos 24^\circ \cdot \cos x + \sin 24^\circ \cdot \sin x = \sin 2x$ $\cos(24^\circ - x) = \sin 2x$ $\sin[90^\circ - (24^\circ - x)] = \sin 2x$ $\sin(66^\circ + x) = \sin 2x$ $2x = 66^\circ + x + k \cdot 360^\circ$ $x = 66^\circ + k \cdot 360^\circ; k \in \mathbb{Z}$ or $2x = 180^\circ - (66^\circ + x) + k \cdot 360^\circ$ $2x = 114^\circ - x + k \cdot 360^\circ$ $x = 38^\circ + k \cdot 120^\circ; k \in \mathbb{Z}$ OR/OF	✓ $\cos(24^\circ - x)$ ✓ changing to cos/verander na cos ✓ first quad/1ste kwadrant ✓ Gen solution 1/alg opl 1 ✓ 4th quad/4de kwadrant ✓ Gen solution 2/alg opl 1 – 1 if/as $k \in \mathbb{Z}$ is not included/nie deel van die antwoord is nie ✓ $\cos(24^\circ - x)$ ✓ changing to cos/verander na cos ✓ first quad/1ste kwadrant ✓ Gen solution 1/alg opl 1 ✓ 4th quad/4de kwadrant ✓ Gen solution 2/alg opl 2 – 1 if/as $k \in \mathbb{Z}$ is not included/nie deel van die antwoord is nie ✓ $\cos(24^\circ - x)$ ✓ changing to/verander na sin ✓ first quad/1ste kwadrant ✓ Gen solution 1/alg opl 1 ✓ 2th quad/4de kwadrant ✓ Gen Solution 2/alg opl 2
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	$\cos 24^\circ \cdot \cos x + \sin 24^\circ \cdot \sin x = \sin 2x$ $\cos(24^\circ - x) = \sin 2x$ $\cos(24^\circ - x) = \cos(90^\circ - 2x)$ $24^\circ - x = 90^\circ - 2x + k \cdot 360^\circ$ $x = 66^\circ + k \cdot 360^\circ; k \in \mathbb{Z}$ or $24^\circ - x = 360^\circ - (90^\circ - 2x) + k \cdot 360^\circ$ $-3x = 246^\circ + k \cdot 360^\circ$ $x = -82^\circ - k \cdot 120^\circ; k \in \mathbb{Z}$	$\cos(24^\circ - x)$ ✓ changing to cos/verander na cos ✓ first quad/1ste kwadrant ✓ Gen solution 1/alg opl 1 ✓ 4 th quad/4de kwadrant ✓ Gen Solution 2/alg opl 2 – 1 if/as $k \in \mathbb{Z}$ is not included/nie deel van die antwoord is nie (6)
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[13]

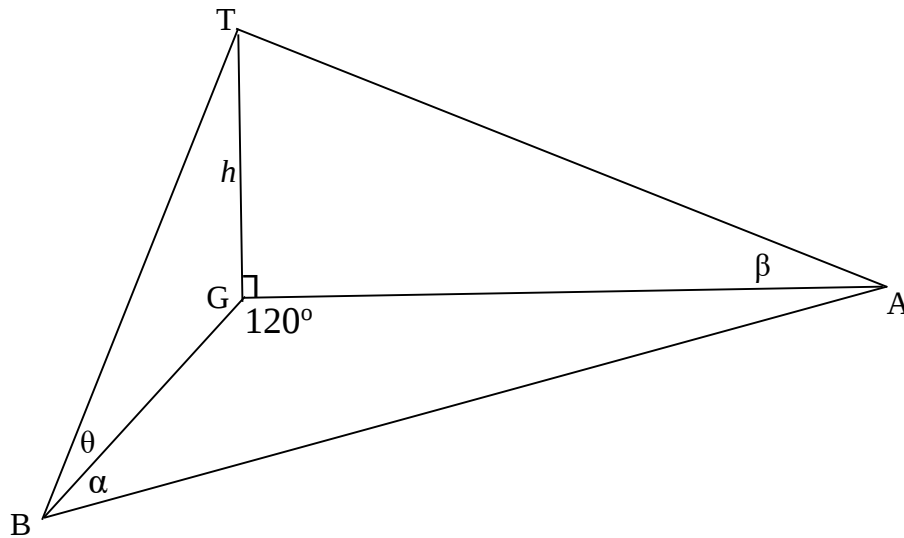
QUESTION/VRAAG 5

5.1	$a = 5$ $b = 1$	✓ $a = 5$ ✓ $b = 1$ (2)
5.2	Amplitude = 4	✓ answer/antwoord (1)
5.3	360°	✓ answer/antwoord (1)
5.4.1	$x = -90^\circ$	✓ answer/antwoord (1)
5.4.2	$x \in (-90^\circ; 90^\circ)$ or $-90^\circ < x < 90^\circ$	✓✓ answer/antwoord (2)
5.4.3	$x \in [-180^\circ; 180^\circ]$ or $-180^\circ \leq x \leq 180^\circ$	✓✓ answer/antwoord (2)
5.5	$\frac{8}{g(x)}$ minimum when $x = 0^\circ$ $\min = \frac{8}{4}$ $\min = 2$	✓ 4 ✓ answer/antwoord (2)
5.6	$k < -5$ or $k > 5$	✓ $k < -5$ ✓ $k > 5$ (2)

[13]

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QUESTION/VRAAG 6

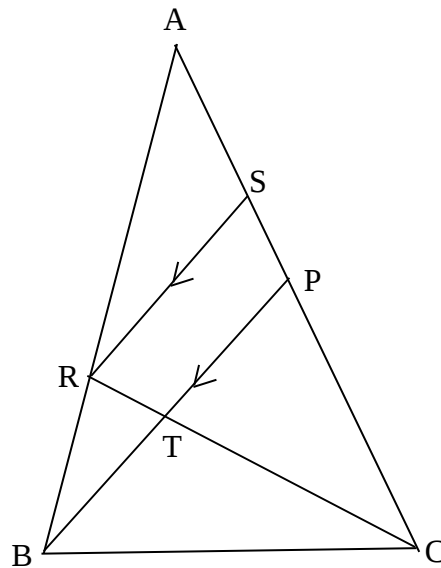


6.1	$\hat{A}_1 + \alpha + 120^\circ = 180^\circ$ $\hat{A}_1 = 60^\circ - \alpha$ Answer/antwoord only: full marks	$\checkmark \hat{A}_1 + \alpha + 120^\circ = 180^\circ$ $\checkmark$ answer/antwoord (2)
6.2	$\tan \theta = \frac{h}{BG}$ $BG = \frac{h}{\tan \theta}$	$\checkmark \tan \theta = \frac{h}{BG}$ $\checkmark BG = \frac{h}{\tan \theta}$ (2)
6.3	$\tan \beta = \frac{h}{AG}$ $AG = \frac{h}{\tan \beta}$ $\frac{\sin \alpha}{AG} = \frac{\sin(60^\circ - \alpha)}{BG}$ $\sin \alpha = \frac{AG \sin(60^\circ - \alpha)}{BG}$ $\sin \alpha = \frac{\frac{h}{\tan \beta} \times \sin(60^\circ - \alpha)}{\frac{h}{\tan \alpha}}$ $\sin \alpha = \frac{\tan \theta \sin(60^\circ - \alpha)}{\tan \beta}$	$\checkmark \tan \beta = \frac{h}{AG}$ $\checkmark AG = \frac{h}{\tan \beta}$ $\checkmark \frac{\sin \alpha}{AG} = \frac{\sin(60^\circ - \alpha)}{BG}$ $\checkmark$ substitution/vervanging (4)

7.3		
7.3.1	$\angle$ sub by dia/ <i>onderspan deur middellyn</i> OR/OF $[\angle \text{ in semi-circle}/\angle \text{ in halfsirkel}]$	✓ R (1)
7.3.2	$\widehat{QPS} = 90^\circ$ [<i>rad $\perp$ tan/rad $\perp$ rklyn</i>] $\widehat{P}_2 = 90^\circ - x$ $\widehat{R}_1 = 90^\circ$ [$\angle$ in semi-circle/ $\angle$ in halfsirkel] $\widehat{PRS} = 90^\circ$ [$\angle$ s on a str line/ $\angle^e$ op “n reguitlyn] $\widehat{S} + (90^\circ - x) + 90^\circ = 180^\circ$ [sum of $\angle$ s of a Δ /som van $\angle^e$ van Δ] $\therefore \widehat{S} = x$	✓ S/R ✓ S ✓ S/R ✓ S/R (4)
7.3.3	$\widehat{S} = x$ [proved in 7.3.2] $\widehat{W}_2 = \widehat{QPR} = x$ [$\angle$ s in same seg/ $\angle^e$ in dies seg] $\therefore$ SRWT is a cyclic quad [ext $\angle$ of a quad = int opp $\angle$ OR converse of ext $\angle$ of cyclic quad] / $\therefore$ SWRT is ‘n kvh [<i>buite $\angle$ van vierhoek = teenoorst binne $\angle$ van vierhoek</i>] OF omgekeerde buite $\angle$ van kvh	✓ S ✓ R ✓ R (3)

[22]

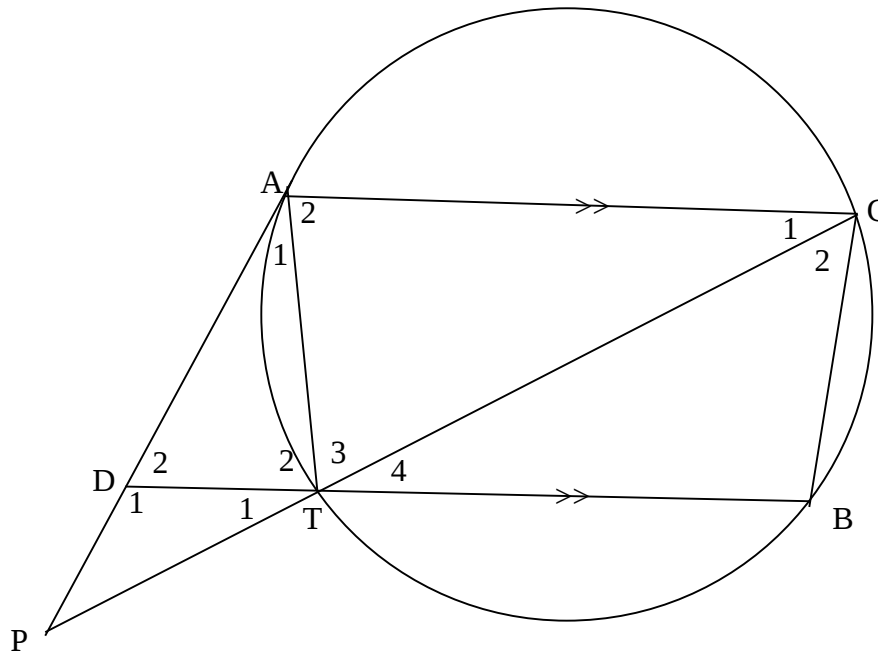
QUESTION/VRAAG 8



8.1	$\frac{AS}{SP} = \frac{AR}{RB}$ [line $\parallel$ to one side of Δ /lyn $\parallel$ een sy v Δ Prop theorem/ eweredigheid stelling $RS \parallel BP$], OR $\frac{AS}{SP} = \frac{3}{2}$ $\therefore \frac{AS}{SC} = \frac{3}{7}$	$\checkmark$ S $\checkmark$ R $\checkmark$ substitution/vervanging $\checkmark$ answer/antwoord (4)
8.2	$\frac{RT}{TC} = \frac{SP}{PC}$ [line $\parallel$ to one side of Δ /lyn $\parallel$ een sy v Δ Prop theorem/ eweredigheid stelling $RS \parallel TP$], $\frac{RT}{20} = \frac{2}{5}$ $RT = 8 \text{ units}$	$\checkmark$ S/R $\checkmark$ substitution/vervanging $\checkmark$ answer/antwoord (3)
8.3	$\frac{\text{Area of } \Delta TPC}{\text{Area of } \Delta RSC} = \frac{\frac{1}{2} TC \cdot PC \sin \hat{T}CP}{\frac{1}{2} RC \cdot SC \sin \hat{R}CS}$ $= \frac{TC}{RC} \cdot \frac{PC}{SC}$ $= \frac{5}{7} \cdot \frac{5}{7}$ $= \frac{25}{49}$	$\checkmark$ $\frac{1}{2} TC \cdot PC \cdot \sin \hat{T}CP$ $\checkmark$ $\frac{1}{2} RC \cdot SC \cdot \sin \hat{R}CS$ $\checkmark$ $= \frac{5}{7} \cdot \frac{5}{7}$ $\checkmark$ answer/antwoord (4)

[11]

QUESTION/VRAAG 9



9.1	In ΔPAT and ΔPCA $\hat{P} = \hat{P}$ [common/<i>gemeenskaplik</i>] $\hat{A}_1 = \hat{C}_1$ [tan chord theorem/<i>rklyn-koord stelling</i>] $A\hat{T}P = P\hat{A}C$ [sum of $\angle$ s of a Δ/<i>som $\angle^e$ v Δ</i>] $\therefore \Delta$PAT $\parallel$ ΔPCA [AAA/$\angle \angle \angle$]	✓ S/R ✓ S /R ✓ R or/ 3rd angle/ <i>of</i> 3^{de} $\angle$ v Δ
9.2	$\frac{PA}{PC} = \frac{PT}{PA}$ [ΔPAT $\parallel$ ΔPCA] $PA^2 = PC \cdot PT$ $6^2 = (x+5)x$ $x^2 + 5x - 36 = 0$	✓ S ✓ R ✓ S ✓ substitution/<i>vervanging</i>
9.3	$x^2 + 5x - 36 = 0$ $(x+9)(x-4) = 0$ $x = -9$ or $x = 4$ $\therefore PT = 4$ m	✓ factors/<i>faktore</i> ✓ x-values/x-waardes ✓ answer/<i>antwoord</i>

9.4	In $\triangle PDT$ and $\triangle PTA$ $\hat{P} = \hat{P}$ [common/gemeenskaplik] $\hat{T}_1 = \hat{C}_1$ [corresp $\angle$ s /ooreenk $\angle^e$; BD// AC] $\hat{A}_1 = \hat{C}_1$ [tan chord theorem <i>rklyn-koord stelling</i>] $\therefore \hat{T}_1 = \hat{A}_1$ $\hat{D}_1 = \hat{P}\hat{T}\hat{A}$ [sum of $\angle$ s of a $\triangle$/som $\angle^e$ v $\triangle$] $\therefore \triangle PDT \parallel \triangle PTA$ [$\angle \angle \angle$] $\frac{PD}{PT} = \frac{PT}{PA}$ [$\triangle$s $\parallel$] $\frac{PD}{4} = \frac{4}{6}$ $PD = \frac{8}{3}$ units or 2,67 units OR In $\triangle PDT$ and $\triangle PAC$ $\hat{P} = \hat{P}$ [common/gemeenskaplik] $\hat{T}_1 = \hat{T}_4$ [vert opp $\angle$ s/regoorst $\angle^e$] but $\hat{T}_4 = \hat{C}_1$ [alt $\angle$ s /verw $\angle^e$; AC//TB] $\therefore \hat{T}_1 = \hat{C}_1$ $\hat{D}_1 = \hat{P}\hat{A}\hat{C}$ [sum of $\angle$ s of a $\triangle$/som v $\angle^e$ v $\triangle$] $\therefore \triangle PDT \parallel \triangle PAC$ [$\angle \angle \angle$] $\frac{PD}{PA} = \frac{PT}{PC}$ [$\triangle$s $\parallel$] $\frac{PD}{6} = \frac{4}{9}$ $PD = \frac{8}{3}$ units or 2,67 units	✓ S ✓ S/R ✓ S/R ✓ S ✓ S/R ✓ S ✓ substitution/vervanging ✓ answer/antwoord ✓ S ✓ S/R ✓ S/R ✓ S ✓ S/R ✓ S ✓ substitution/vervanging ✓ answer/antwoord (8)
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[17]

TOTAL/TOTAAL: 150