



Province of the
EASTERN CAPE
EDUCATION



**NATIONAL
SENIOR CERTIFICATE/
NASIONALE
SENIOR SERTIFIKAAT**

GRADE/GRAAD 12

JUNE/JUNIE 2022

**TECHNICAL MATHEMATICS P2/TEGNIESE WISKUNDE V2
MARKING GUIDELINE/NASIENRIGLYN**

MARKS/PUNTE: 150

This marking guideline consists of 18 pages./
Hierdie nasienriglyn bestaan uit 18 bladsye.

NOTE:

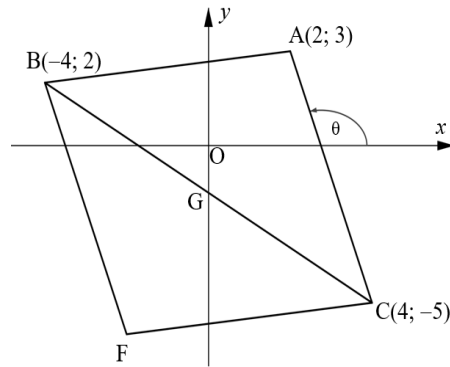
- Continuous accuracy (CA) applies only where indicated in this marking guideline.
- Assuming values/answers in order to solve a problem is unacceptable.

LET WEL:

- *Volgehoue akkuraatheid (CA) is slegs van toepassing soos aangedui in hierdie nasienriglyn.*
- *Aanvaarding van waardes/antwoorde om 'n probleem op te los, is onaanvaarbaar.*

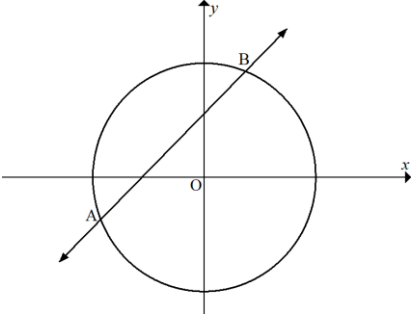
MARKING CODES / NASIENKODES	
M	Method/ <i>Metode</i>
A	Accuracy/ <i>Akkuraatheid</i>
AO	Answer only/ <i>Slegs antwoord</i>
CA	Consistent accuracy/ <i>Deurlopende akkuraatheid</i>
F	Formula/ <i>Formule</i>
I	Identity/ <i>Identiteit</i>
R	Rounding/ <i>Afronding</i>
S	Simplification/ <i>Vereenvoudiging</i>
ST	Statement/ <i>Bewering</i>
RE	Reason/ <i>Rede</i>
ST RE	Statement and correct reason/ <i>Bewering en korrekte rede</i>
SF	Substitution correctly in correct formula/ <i>Korrekte vervanging in die korrekte formule</i>
NPU	No penalty for omitting units/ <i>Geen penalisering vir eenhede uitgelaat</i>

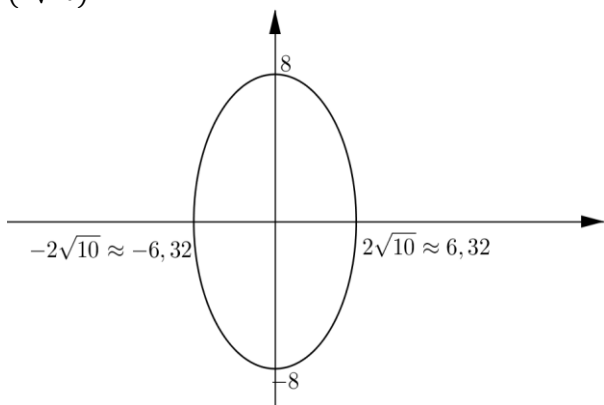
QUESTION/VRAAG 1



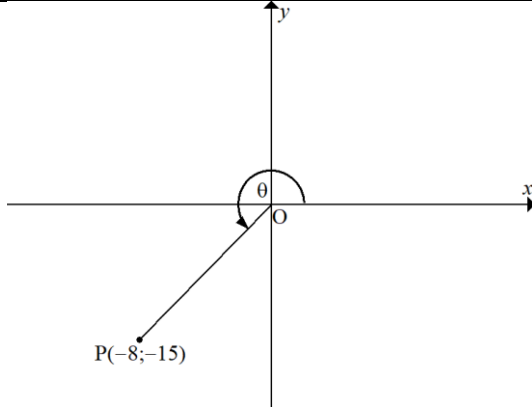
<p>1.1</p>	$AC = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$ $= \sqrt{(2 - (-4))^2 + (3 - (-5))^2} = \sqrt{(4 - (-2))^2 + (-5 - 3)^2}$ $= \sqrt{68}$ $= 2\sqrt{17}$ <p style="text-align: right;">AO: Full marks / Volpunte</p>	<p>✓ SF A</p> <p>✓ S C</p> <p style="text-align: right;">(2)</p>
<p>1.2</p>	$m_{AC} = \frac{y_2 - y_1}{x_2 - x_1}$ $= \frac{3 - (-5)}{2 - (-4)} = \frac{-5 - 3}{4 - 2}$ $= -4$ <p>Equation of / Vergelyking van AC: Substitute / Vervang (2;3) or / of (4; -5) into / in $y - y_1 = m(x - x_1)$</p> $y - 3 = -4(x - 2) \qquad y + 5 = -4(x - 4)$ $y = -4x + 8 + 3 \qquad \text{OR / OF} \qquad y = -4x + 16 - 5$ $y = -4x + 11 \qquad y = -4x + 11$	<p>✓ SF A</p> <p>✓ m_{AC} CA</p> <p>✓ SF CA</p> <p>✓ S CA</p> <p style="text-align: right;">(4)</p>
<p>1.3</p>	$\tan \theta = m_{AC} = -4$ $\therefore \text{Ref. / Verw. } \angle = 75,96^\circ$ $\therefore \theta = 180^\circ - 75,96^\circ \approx 104,04^\circ$	<p>✓ M</p> <p>✓ Ref / Verw \angle.</p> <p>✓ Obtuse \angle / stomphoekige \angle</p> <p>NPU</p> <p style="text-align: right;">(3)</p>
<p>1.4</p>	$G\left(\frac{x_1 + x_2}{2}; \frac{y_1 + y_2}{2}\right) = \left(\frac{-4 + 4}{2}; \frac{2 - 5}{2}\right) = \left(0; -\frac{3}{2}\right)$ <p style="text-align: right;">AO: Full marks / Volpunte</p>	<p>✓ x-coordinate / afsnit</p> <p>✓ y-coordinate / afsnit</p> <p style="text-align: right;">(2)</p>
<p>1.5</p>	$\left(\frac{x_F + x_A}{2}; \frac{y_F + y_A}{2}\right) = (x_G; y_G)$ $\therefore \frac{x_F + 2}{2} = 0 \quad \text{and/en} \quad \frac{y_F + 3}{2} = -\frac{3}{2}$ $\therefore x_F = -2 \quad \text{and/en} \quad y_F = -6$	<p>✓ M</p> <p>✓ x_F CA</p> <p>✓ y_F CA</p> <p style="text-align: right;">(3)</p>

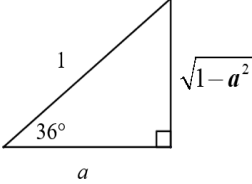
QUESTION/VRAAG 2

<p>2.1</p>		
<p>2.1.1</p>	$x^2 + (x + 3)^2 = 29$ $x^2 + x^2 + 6x + 9 - 29 = 0$ $2x^2 + 6x - 20 = 0$ $x^2 + 3x - 10 = 0$ $(x + 5)(x - 2) = 0$ $x = -5 \text{ or / of } x = 2$ $y = -2 \text{ or / of } y = 5$	<ul style="list-style-type: none"> ✓ substitution / vervanging ✓ expansion / uitbreiding ✓ standard form / standaardvorm ✓ Factorise / faktoriseer ✓ values of x / waardes van x ✓ values of y / waardes van y <p style="text-align: right;">(7)</p>
<p>2.1.2 (a)</p>	<p>Substitute (-5;2) into circle equation <i>Vervang (-5;2) in sirkel vergelyking:</i> $r^2 = (-5)^2 + (2)^2 = 25 + 4 = 29$ \therefore the point lie on the circle / <i>die punt lê op die sirkel</i></p>	<ul style="list-style-type: none"> ✓ M ✓ conclusion / gevolgtrekking <p style="text-align: right;">(2)</p>
<p>2.1.2 (b)</p>	$xx_1 + yy_1 = r^2$ $x(-5) + y(2) = 29$ $-5x + 2y = 29$ $y = \frac{5}{2}x + \frac{29}{2}$ <p style="text-align: center;">OR / OF</p> $m_{rad} = \frac{2}{-5}$ $m_{tan} = \frac{5}{2} \text{ (rad } \perp \text{ tan)}$ <p>Equation / <i>Vergelyking:</i> $y - y_1 = m(x - x_1)$ $y - 2 = \frac{5}{2}(x + 5)$ $y = \frac{5}{2}x + \frac{29}{2}$</p>	<ul style="list-style-type: none"> ✓ F ✓ SF A ✓ S CA ✓ eq of line / vergl van lyn <p style="text-align: center;">OR / OF</p> <ul style="list-style-type: none"> ✓ m_{rad} A ✓ m_{tan} CA <ul style="list-style-type: none"> ✓ SF CA ✓ eq of line / vergl van lyn <p style="text-align: right;">(4)</p>

2.2	$\frac{x^2}{(2\sqrt{10})^2} + \frac{y^2}{8^2} = 1$ 	<p>✓ elliptical shape with vertical axis as major / <i>Elliptiese vorm met groter-as die vertikale as</i></p> <p>✓ x-intercepts/ x-afsnitte A</p> <p>✓ y-intercepts/ y-afsnitte A</p> <p style="text-align: right;">(3)</p>
		[16]

QUESTION/VRAAG 3

<p>3.1</p>		
<p>3.1.1</p>	<p>$OP^2 = r^2 = (-8)^2 + (-15)^2 = 289$ $\therefore OP = 17$</p>	<p>✓ Subst/Vervang P A ✓ OP^2 A ✓ OP CA (3)</p>
<p>3.1.2</p>	<p>$\tan \theta = \frac{-15}{-8} = \frac{15}{8}$</p>	<p>✓ A (1)</p>
<p>3.1.3</p>	<p>$\cos ec^2 \theta - 1 = \cot^2 \theta$</p> $= \left(\frac{-8}{-15} \right)^2$ $= \frac{64}{225}$ <p style="text-align: center;">OR / OF</p> <p>$\cos ec^2 \theta - 1 = \left(\frac{17}{-15} \right)^2 - 1$</p> $= \frac{289}{225} - 1$ $= \frac{64}{225}$	<p>✓ I A ✓ ratio / verh A ✓ S CA OR/OF ✓ ratio / verh A ✓ S CA ✓ S CA (3)</p>
<p>3.2.1</p>	<p>$\sin \left(\frac{180^\circ}{2} - 15,7^\circ \right) \approx 0,963$ Penalty for units / Penaliseer vir eenhede AO: Full marks / Volpunte</p>	<p>✓ $\pi = 180^\circ$ ✓ answer / antwoord A (2)</p>
<p>3.2.2</p>	<p>$\sec(135,5^\circ + 15,7^\circ) \approx -1,141$ Penalty for rounding / Penaliseer vir afronding</p>	<p>✓✓ answer / antwoord (2)</p>
<p>3.3.1</p>	<p>$\sin x + 1 = 0,587$ $\sin x = -0,413$ \therefore Ref. /Verw. $\angle = 24,4^\circ$ $\therefore x = 180^\circ + 24,9^\circ$ or / of $360^\circ - 24,9^\circ$ $\therefore x = 204,4^\circ$ or / of $335,6^\circ$</p>	<p>✓ S A ✓ Ref / Verw \angle CA ✓ $204,4^\circ$ CA ✓ $335,6^\circ$ CA NPU (4)</p>

3.3.2	$\tan 2x = \frac{1}{2,114} = 0,473$ $\therefore \text{Ref./Verw. } \angle = 25,3^\circ$ $2x = 180^\circ + 25,3^\circ$ $x = 102,7^\circ$	<ul style="list-style-type: none"> ✓ S A ✓ Ref/Verw \angle CA ✓ Quadrant / Kwadrant A ✓ value of x / waarde van x CA <p style="text-align: right;">(4)</p>
3.4.1	 $\tan 36^\circ = \frac{\sqrt{1-a^2}}{a}$ <p style="text-align: center;">OR/OF</p> $\tan 36^\circ = \frac{\sin 36^\circ}{\cos 36^\circ}$ $= \frac{\sqrt{1-\cos^2 36^\circ}}{\cos 36^\circ}$ $= \frac{\sqrt{1-a^2}}{a}$	<ul style="list-style-type: none"> ✓✓ M complete Δ / voltooi Δ A ✓ ratio / verh CA <p style="text-align: center;">OR/OF</p> <ul style="list-style-type: none"> ✓ $\frac{\sin 36^\circ}{\cos 36^\circ}$ I A ✓ $\sqrt{1-\cos^2 36^\circ}$ I A <ul style="list-style-type: none"> ✓ ratio i.t.o a / verh i.t.v a CA <p style="text-align: right;">(3)</p>
3.4.2	$\sec^2 144^\circ = \sec^2 36^\circ$ $= \frac{1}{a^2}$	<ul style="list-style-type: none"> ✓ $\sec^2 36^\circ$ A ✓ ratio / verh. CA <p style="text-align: right;">(2)</p>
		[24]

QUESTION/VRAAG 4

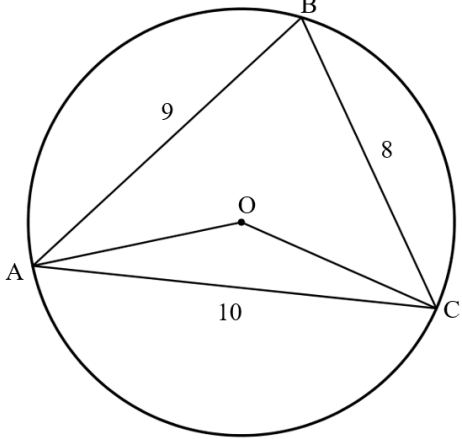
4.1	1	✓ A (1)
4.2	$\frac{\sec x}{\cos(360^\circ - x)} + \frac{\tan^2(180^\circ - x)}{\sin(180^\circ + x) \operatorname{cosec}(180^\circ - x)}$ $= \frac{\sec x}{\cos x} + \frac{\tan^2 x}{(-\sin x)(\operatorname{cosec} x)}$ $= \frac{\sec x}{\frac{1}{\sec x}} - \frac{\tan^2 x}{(\sin x)\left(\frac{1}{\sin x}\right)} \quad \text{OR/OR} \quad \frac{\frac{1}{\cos x}}{\cos x} - \frac{\tan^2 x}{(\sin x)\left(\frac{1}{\sin x}\right)} = \frac{1}{\cos^2 x} - \tan^2 x$ $= \sec^2 x - \tan^2 x$ $= 1$	✓ $\cos x$ A ✓ $\tan^2 x$ A ✓ $-\sin x$ A ✓ $\operatorname{cosec} x$ A ✓ $\frac{1}{\sec x}$ I A ✓ $\frac{1}{\sin x}$ I A ✓ $\sec^2 x - \tan^2 x$ CA ✓ 1 CA (8)
4.3	LHS/LK = $\sin(360^\circ - x) \cot(180^\circ - x)$ $= (-\sin x)(-\cot x)$ $= \sin x \times \frac{\cos x}{\sin x}$ $= \cos x$ $= \text{RHS/RK}$	✓ $-\sin x$ A ✓ $-\cot x$ A ✓ $\frac{\cos x}{\sin x}$ A ✓ S CA (4)
		[13]

QUESTION/VRAAG 5

5.1	$a = 2$	✓ A (1)
5.2	$x = 90^\circ$ or/of $x = 270^\circ$	✓ $x = 90^\circ$ A ✓ $x = 270^\circ$ A (2)
5.3	180°	✓ A (1)

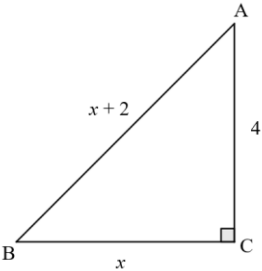
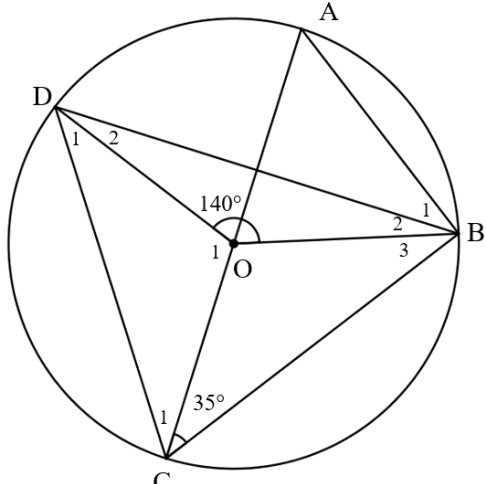
<p>5.4</p>		<ul style="list-style-type: none"> ✓ shape with end points / vorm met eindpunte A ✓ x-intercepts / x-afsnitte A ✓ turning points / draaipunte A <p>(3)</p>
<p>5.5</p>	<p>1</p>	<ul style="list-style-type: none"> ✓ A <p>(1)</p>
<p>5.6.1</p>	<p>for f / vir: $x \in \{0^\circ; 180^\circ; 360^\circ\}$ for/vir g: $x \in \{150^\circ; 330^\circ\}$</p>	<ul style="list-style-type: none"> ✓ set of values for f / versameling van waardes vir f A ✓ set of values for g / versameling van waardes vir g CA <p>(2)</p>
<p>5.6.2</p>	<p>$0^\circ \leq x < 90^\circ$ or/of $180^\circ \leq x < 270^\circ$</p> <p style="text-align: center;">OR/OF</p> <p>$x \in (0^\circ; 90^\circ)$ or/of $x \in (180^\circ; 270^\circ)$</p>	<p>$0^\circ \leq x < 90^\circ$</p> <ul style="list-style-type: none"> ✓ end points / eindpunte A ✓ interval notation / notasie A <p>$180^\circ \leq x < 270^\circ$</p> <ul style="list-style-type: none"> ✓ end points / eindpunte A ✓ interval notation / notasie A <p>(4)</p>
		<p>[14]</p>

QUESTION/VRAAG 6

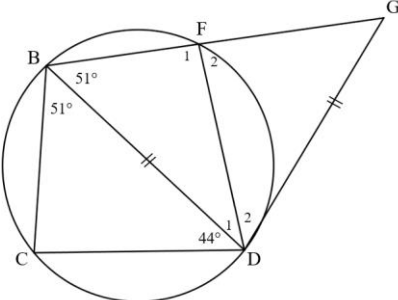
6.1	$p^2 = q^2 + r^2 - 2qr \cos P$ OR/OF $q^2 = p^2 + r^2 - 2pr \cos Q$ OR/OF $r^2 = q^2 + p^2 - 2qp \cos R$	✓ A (1)
6.2		
6.2.1	In $\triangle ABC$: $b^2 = a^2 + c^2 - 2ac \cos B$ $10^2 = 8^2 + 9^2 - 2(8)(9)\cos B$ $\cos B = \frac{64 + 81 - 100}{144} = 0,3125$ $\hat{B} = 71,79^\circ$	✓ F A ✓ SF A ✓ value of / waarde van $\cos B$ CA ✓ answer / antwoord CA NPU (4)
6.2.2	$\widehat{AOC} = 143,58^\circ \dots$ (\angle a centre $= 2 \times \angle$ at circm.) (\angle midpts $\angle = 2 \times$ omtreks. \angle)	✓ ST CA ✓ RE A (2)

<p>6.2.3</p>	<p>$\widehat{OAC} = \widehat{OCA}$ $\angle s$ opp. = sides $\angle e$ teenoor. = sye</p> <p>$\widehat{OAC} = \frac{180^\circ - 143,58^\circ}{2} \dots$ int. $\angle s$ of Δ binne $\angle e$ of Δ</p> <p>= 18,2°</p> <p>In ΔAOC:</p> $\frac{a}{\sin A} = \frac{o}{\sin O}$ $\frac{a}{\sin 18,2^\circ} = \frac{o}{\sin 143,58^\circ}$ $a = \frac{10 \sin 18,2^\circ}{\sin 143,58^\circ}$ <p>$a = 5,26$ ∴ diameter / middellyn = 10,52 units / eenhede</p> <p style="text-align: center;">OR/OF</p> <p>In ΔAOB:</p> $10^2 = r^2 + r^2 - 2r \cdot r \cos 143,58^\circ$ $= 2r^2 - 2r^2 \cos 143,58^\circ$ $100 = 2r^2 (1 - \cos 143,58^\circ)$ $2r^2 = \frac{100}{1 - \cos 143,58^\circ} = 55,4112\dots$ $r^2 = 27,7056\dots$ $r = \sqrt{27,7056\dots} \approx 5,26$ <p>∴ diameter / middellyn = 10,52 units/eenhede</p>	<p>✓ $\widehat{OAC} = 18,2^\circ = \widehat{OCA}$</p> <p>✓ sin rule/reël M</p> <p>✓ SF CA</p> <p>✓ value of / waarde van a CA</p> <p>✓ value of diameter / waarde van middellyn CA</p> <p>NPU</p> <p style="text-align: center;">OR/OF</p> <p>✓ cos rule/reël M</p> <p>✓ SF CA</p> <p>✓ simplification / vereenvoudiging</p> <p>✓ value of / waarde van r CA</p> <p>✓ value of diameter / waarde van middellyn CA</p> <p style="text-align: right;">(5)</p>
<p>6.2.4</p>	<p>Area $\Delta ABC = \frac{1}{2} ac \sin B$</p> $= \frac{1}{2} (8)(9) \sin 71,79^\circ$ $= 34,20 \text{ units}^2/\text{eenhede}^2$	<p>✓ F</p> <p>✓ SF CA</p> <p>✓ answer / antwoord</p> <p>NPU</p> <p style="text-align: right;">(3)</p>
		<p>[15]</p>

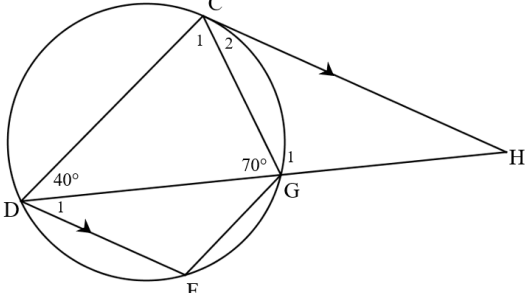
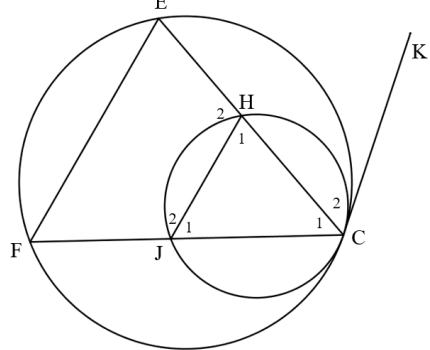
QUESTION/VRAAG 7

<p>7.1</p>		
<p>7.1.1</p>	$(x + 2)^2 = x^2 + 4^2 \dots \text{Pythagoras}$ $x^2 + 4x + 4 = x^2 + 16$ $4x = 12$ $x = 3$ <p>$BC = 3$ units/eenhede</p>	<p>✓ Pythagoras</p> <p>✓ S CA</p> <p>✓ answer /antwoord NPU</p> <p>(3)</p>
<p>7.1.2</p>	<p>AB (chord) subtends a 90° angle / koord onderspan 90° hoek OR/OF Converse \angle in semi-circle / omgekeerde \angle in semi-sirkel</p>	<p>✓ reason / rede</p> <p>(1)</p>
<p>7.2</p>		
<p>7.2.1</p>	<p>$\hat{B}_3 = 35^\circ \dots$ (\angles opp = sides / \anglee teenoor = sye)</p> <p>$\hat{BOC} = 110^\circ \dots$ ($\text{Int } \angle$s of Δ/ Binne \anglee van Δ)</p> <p>$\hat{O}_1 = 110^\circ \dots$ (Revolutions / Omwenteling)</p>	<p>✓ ST RE</p> <p>✓ ST RE</p> <p>✓ ST RE</p> <p>(3)</p>
<p>7.2.2</p>	<p>$\hat{B}_2 = \frac{180^\circ - 140^\circ}{2} \dots$ ($\text{Int } \angle$ of Δ and \angles opp – sides / Binne \anglee van Δ en \anglee teenoor = sye)</p> <p>$= 20^\circ$</p> <p>$\hat{B}_1 = 90^\circ - (35^\circ - 20^\circ)$ (\angle in semi-circle / \angle in semi-sirkel)</p> <p>$= 35^\circ$</p>	<p>✓ ST RE</p> <p>✓ ST</p> <p>✓ RE</p> <p>(3)</p>

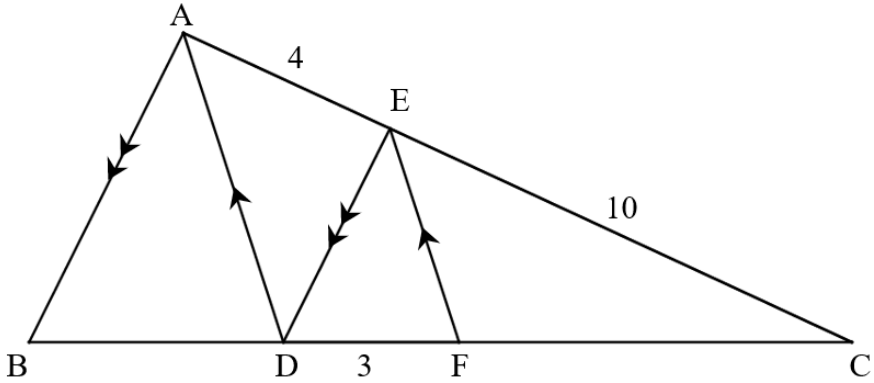
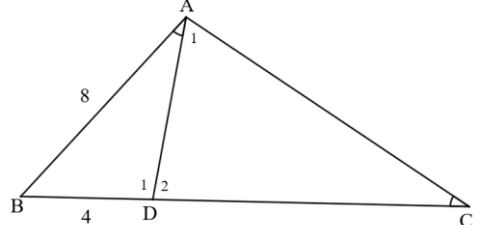
QUESTION/VRAAG 8

8.1	Interior opposite angle / teenoorstaande binnehoek	✓ reason / rede (1)
8.2		
8.2.1	$\hat{C} = 85^\circ \dots$ (Int \angle s of Δ) (Binne \angle e van Δ) $\hat{F}_2 = 85^\circ \dots$ (ext \angle of cyclic quad) (buite \angle van kdvh) $\hat{G} = 51^\circ \dots$ (\angle s opp = sides) (\angle e teenoor = sye) $\hat{D}_2 = 44^\circ \dots$ (Int \angle s of Δ) (Binne \angle e van Δ) OR/OF $\hat{D}_1 = 180^\circ - 2 \times 51^\circ - 44^\circ \dots$ [opp. \angle s cyclic quad teenorst. \angle e van kdvh] $= 34^\circ$ $\hat{F}_1 = 95^\circ \dots$ (Int \angle s of Δ) (Binne \angle e van Δ) $\hat{G} = 51^\circ \dots$ (\angle s opp = sides) (\angle e teenoor = sye) $\hat{D}_2 = 95^\circ - 51^\circ$ [ext. \angle of Δ buite \angle van Δ] $= 44^\circ$	✓ ST RE ✓ ST ✓ RE ✓ ST RE ✓ ST RE OR/OF ✓ ST ✓ RE ✓ ST RE ✓ ST RE (5)
8.2.2	In ΔGFD and/en ΔBCD : (1) $GD = BD \dots$ (given / gegee) (2) $\hat{D}_2 = \hat{BDC} \dots$ (proved in 8.2.1 above) (bewys in 8.2.1 hierbo) (3) $FD = CD \dots$ (converse \angle s in same segm.) (omgekeerde \angle e in dies. segm.) $\therefore \Delta GFD \equiv \Delta BCD \dots$ (SAS)	✓ ST RE ✓ ST RE ✓ ST ✓ RE ✓ RE (5)
		[11]

QUESTION/VRAAG 9

9.1	Radius / diameter <i>Radius / middellyn</i>	✓ A (1)
9.2		
9.2.1	$\widehat{C}_2 = 40^\circ \dots (\text{tan - chord/koord})$	✓ ST ✓ RE (2)
9.2.2	$\widehat{C}_1 = 70^\circ \dots \left(\begin{array}{l} \text{Int } \angle\text{s of } \Delta \\ \text{Binne } \angle\text{e van } \Delta \end{array} \right)$ $\widehat{F} = 110^\circ \dots \left(\begin{array}{l} \text{opp } \angle\text{s of cyclic quad} \\ \text{teenoorst. } \angle\text{e van kdvk} \end{array} \right)$	✓ ST RE ✓ ST ✓ RE (3)
9.2.3	$\widehat{H} = 30^\circ \dots \left(\begin{array}{l} \text{Int. } \angle\text{s of } \Delta \\ \text{Binne } \angle\text{e van } \Delta \end{array} \right)$ $\widehat{D}_1 = 30^\circ \dots (\text{alt/verw. } \angle\text{s; CH} \parallel \text{DF})$ <p style="text-align: center;">OR/OF</p> $\widehat{C} + \widehat{D} = 180^\circ \dots (\text{co-int/ko-binne } \angle\text{s; CH} \parallel \text{DH})$ $\widehat{D}_1 = 30^\circ$	✓ ST RE ✓ ST RE <p style="text-align: center;">OR/OF</p> ✓ RE ✓ ST (2)
9.3		
	$\widehat{C}_2 = \widehat{F} \dots (\text{tan - chord/koord})$ $\widehat{C}_2 = \widehat{J}_1 \dots (\text{tan - chord/koord})$ $\therefore \widehat{F} = \widehat{J}_1$ $\therefore EF \parallel JH \dots \left(\begin{array}{l} = \text{corrsp. } \angle\text{s} \\ = \text{ooreenk. } \angle\text{e} \end{array} \right)$	✓ ST ✓ RE ✓ ST RE ✓ RE (4)
		[12]

QUESTION/VRAAG 10

10.1	Parallel to the third side / ewewydig aan die derde sy	✓ A (1)
10.2		
10.2.1	$\frac{FC}{DF} = \frac{EC}{AE} \dots (\text{prop th/ewerh.}; EF \parallel AD)$ $\frac{FC}{3} = \frac{10}{4}$ $FC = 7,5 \text{ units/eenhede}$	✓ ST ✓ RE ✓ ST (3)
10.2.2	$\frac{BD}{DC} = \frac{AE}{EC} (\text{prop th/ewerh.}; AD \parallel ED)$ $\frac{BD}{10,5} = \frac{4}{10}$ $BD = 4,2 \text{ units/eenhede}$	✓ ST ✓ RE ✓ ST CA ✓ ST CA (4)
10.3		
10.3.1	In $\triangle ABD$ and/en $\triangle CBA$: (1) \hat{B} is common/gemeen (2) $\hat{BAD} = \hat{C} \dots (\text{given / gegee})$ $\therefore \triangle ABD \parallel \triangle CBA \dots (AAA)$	✓ ST ✓ ST ✓ RE (3)
10.3.2	$\frac{AB}{CB} = \frac{BD}{BA} = \frac{AD}{CA} \dots (\parallel \Delta s)$ $\therefore \frac{8}{4 + DC} = \frac{4}{8}$ $\therefore 4(4 + DC) = 64$ $\therefore 4 + DC = 16$ $\therefore DC = 12 \text{ units/eenhede}$	✓ ST ✓ RE ✓ ST ✓ ST (4)
		[15]
TOTAL/TOTAAL:		150