KWAZULU-NATAL PROVINCE

EDUCATION
REPUBLIC OF SOUTH AFRICA

PROVINCIAL STANDARDISED ASSESSMENT

GRADE 10

MATHEMATICS P2

PROVINCIAL STANDARDISED ASSESSMENT

JUNE 2026

MARKING GUIDELINE

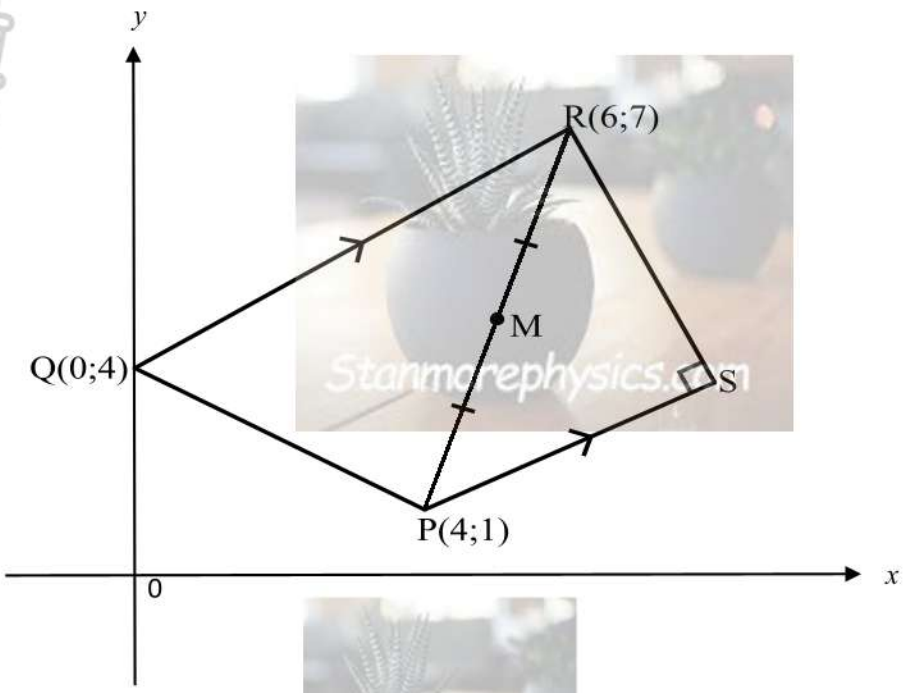
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MARKS: 50

This marking guideline consists of 9 pages.

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QUESTION 1



1.1	$m_{QR}=\frac{y_2-y_1}{x_2-x_1}$ $m_{QR}=\frac{7-4}{6-0}$ $m_{QR}=\frac{1}{2}$	✓A correct substitution ✓CA answer (2)
1.2	$\text{M}\left(\frac{x_1+x_2}{2};\frac{y_1+y_2}{2}\right)$ $\text{M}\left(\frac{6+4}{2};\frac{7+1}{2}\right)$ $\text{M}(5;4)$ Answer only: Full marks	✓A correct substitution ✓CA answer (2)

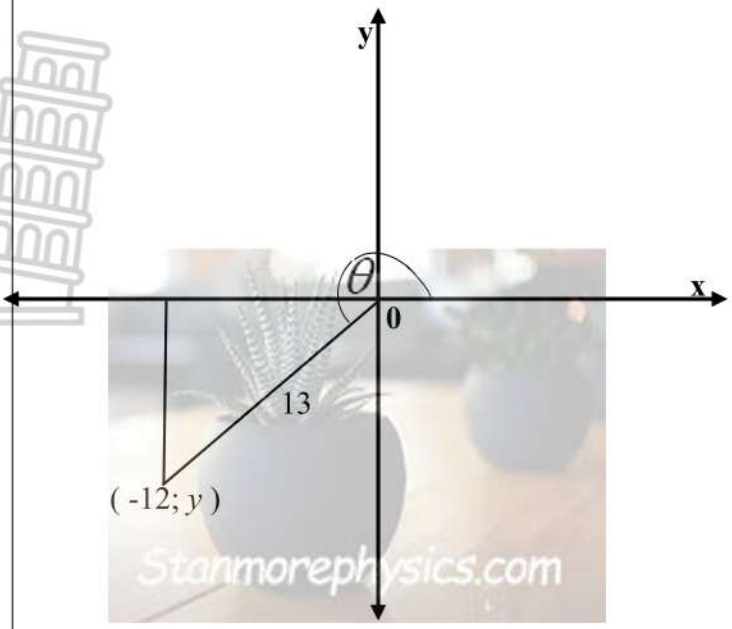
1.3	$m_{PS} = m_{QR}$ $m_{PS} = \frac{1}{2}$ $y - y_1 = m(x - x_1)$ $y - 1 = \frac{1}{2}(x - 4)$ $y = \frac{1}{2}x - 1$ **OR** $m_{PS} = m_{QR}$ $m_{PS} = \frac{1}{2}$ $y = mx + c$ $1 = \frac{1}{2}(4) + c$ $y = \frac{1}{2}x - 1$	✓CA $m_{PS} = \frac{1}{2}$ ✓A correct substitution of point P ✓CA answer (3)
1.4	$m_{RS} \times m_{PS} = -1$ $m_{RS} = -2$ $y - y_1 = m(x - x_1)$ $y - 7 = -2(x - 6)$ $y = -2x + 19$ $-2x + 19 = \frac{1}{2}x - 1$ $x = 8$ $y = 3$ $\therefore S(8;3)$	✓CA $m_{RS} = -2$ ✓CA correct substitution ✓CA $y = -2x + 19$ ✓CA Equating equations ✓CA Answer provided $x; y > 0$ (5)
1.5	$QR = \sqrt{(6-0)^2 + (7-4)^2}$ $QR = 3\sqrt{5}$ $PS = \sqrt{(8-4)^2 + (3-1)^2}$ $PS = 2\sqrt{5}$	✓A $3\sqrt{5}$ ✓CA $2\sqrt{5}$

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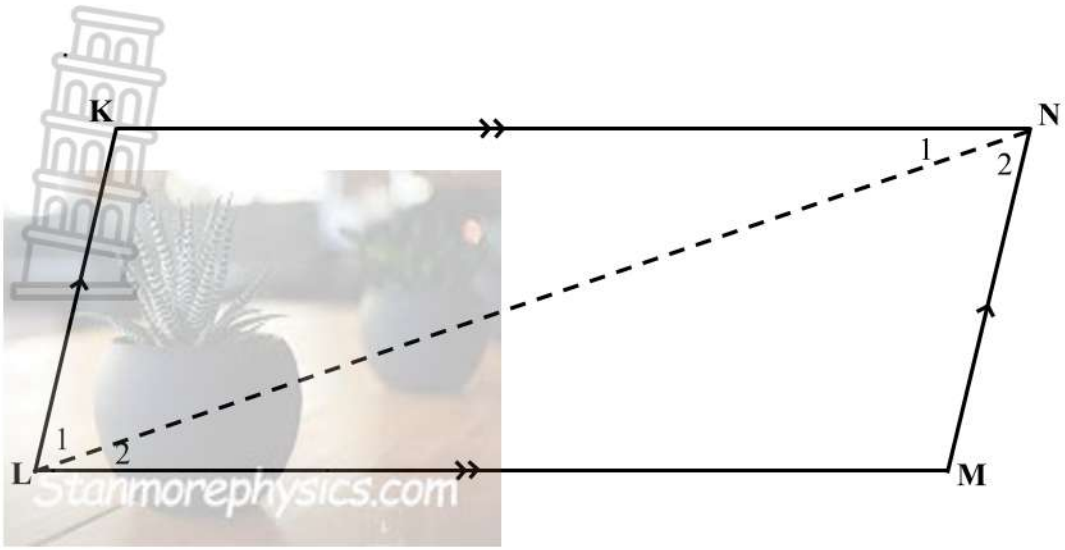
	$RS=\sqrt{(8-6)^2+(3-7)^2}$ $RS=2\sqrt{5}$ Area of PQRS$=\frac{1}{2}(QR+PS)RS$ Area of PQRS$=\frac{1}{2}\left(3\sqrt{5}+2\sqrt{5}\right)\left(2\sqrt{5}\right)$ Area of PQRS$=25$ units^2	✓CA $2\sqrt{5}$ ✓CA substitution into correct formula ✓CA answer (5)
		[17]

QUESTION 2

2.1.1	$2\sin x=1,64$ $\sin x=0,82$ $x=55,08°$	✓A ✓A (2)
2.1.2	$\frac{1,53}{\tan(x-15°)}=1$ $\tan(x-15°)=1,53$ $x-15°=56,83$ $x=71,83°$	✓A ✓A ✓A (3)
2.2	$\frac{\cos 45°}{\sin 45°\left(\frac{1}{\cot^2 30°}\right)}$ $=\frac{\frac{\sqrt{2}}{2}}{\frac{\sqrt{2}}{2}\left(\frac{1}{\sqrt{3}}\right)^2}$ $=3$	✓A $\cos 45°=\frac{\sqrt{2}}{2}$ or $\frac{1}{\sqrt{2}}$ ✓A $\sin 45°=\frac{\sqrt{2}}{2}$ or $\frac{1}{\sqrt{2}}$ ✓A $\cot 30°=\frac{1}{\sqrt{3}}$ ✓CA answer (4)

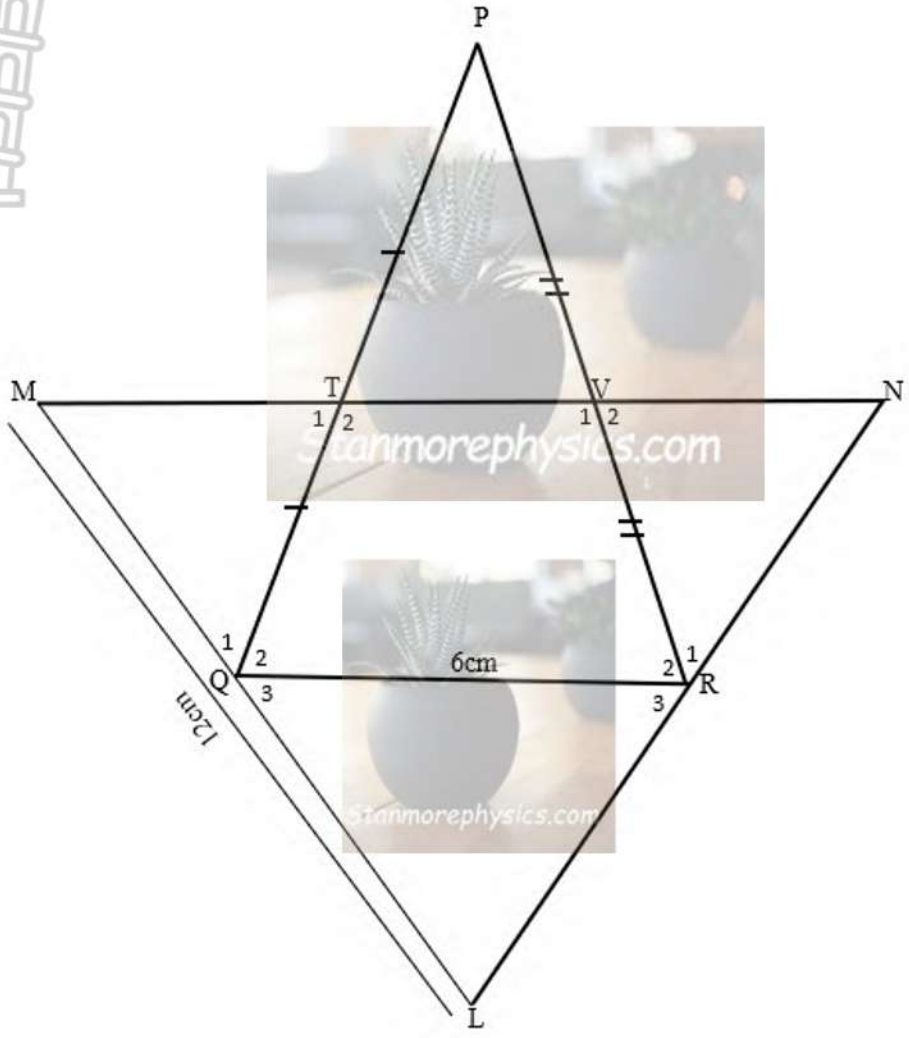
2.3		✓A correct diagram
	$x^2 + y^2 = r^2$ $(-12)^2 + y^2 = (13)^2$	✓A correct substitution
	$y^2 = 25$	
	$y = \pm 5$	
	$y = -5$	✓CA $y = -5$, provided $y < 0$
	$\frac{1}{\sec\theta} + \sin\theta$	
	$= \cos\theta + \sin\theta$	
	$= \frac{-12}{13} + \left(\frac{-5}{13}\right)$	✓CA correct substitution
	$= \frac{-17}{13}$	✓CA answer (5)
		[14]

QUESTION 3



3.1	In ΔKLN and ΔMNL 1. $LN = LN$ [common] 2. $\hat{N}_1 = \hat{L}_2$ [alt angles; KN//LM] 3. $\hat{N}_2 = \hat{L}_1$ [alt angles; LK//MN] $\Delta KLN \equiv \Delta MNL$ [SAA] **OR** [AAS] $\therefore$ KN=LM and KL=NM	✓ S/R ✓ S ✓R ✓ S/R ✓ R (5)

3.2



3.2.1	$TV=\frac{1}{2}QR$ and TV // QR [Midpt Theorem] $TV=\frac{1}{2}(6)$ TV = 3 cm	✓A S/R ✓A correct substitution ✓A answer (3)

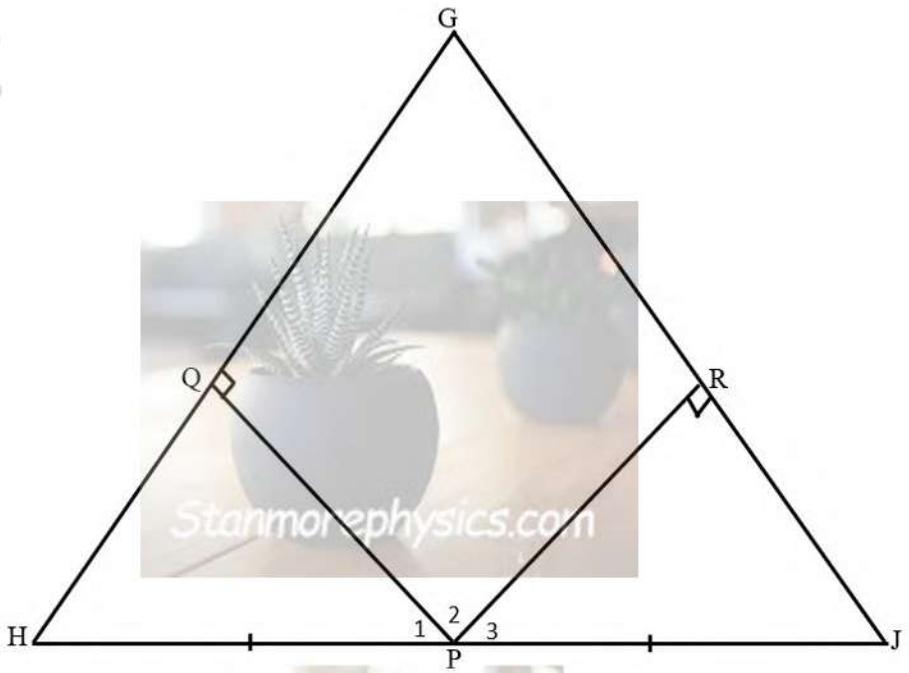
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3.2.2 (a)	MQ=LQ [line through midpt // to 2nd side]
	MQ+LQ=12
	2MQ= 12
	MQ=6cm
		✓A S/R
		✓A correct substitution
		✓A answer
		(3)

3.2.2 (b)	MN=2QR [Midpt Theorem] MN=2(6) MN = 12cm MT+VN+TV=12 MT+VN+3=12 MT+VN=9cm	✓A S/R ✓A S ✓CA answer (3)

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3.3



	In ΔPQH and ΔPRJ		
	1. $HP=PJ$	[Given]	✓A S/R
	2. $H\hat{Q}P=J\hat{R}P$	[both =90°]	✓A S/R
	3. $\hat{P}_1=\hat{P}_3$	[Given]	
	$\Delta PQH \equiv \Delta PRJ$	[SAA] **OR** [AAS]	✓A R
	$Q\hat{H}P=R\hat{J}P$	$[\Delta PQH \equiv \Delta PRJ]$	✓A S/R
	$\therefore HG=JG$	[sides opp equal ∠s]	✓A S/R
	$\therefore \Delta GHJ$ is isosceles		(5)
		OR	
	$G\hat{H}J=90^\circ-\hat{P}_1$	[ext. ∠ of Δ]	✓A S/R
	$G\hat{J}H=90^\circ-\hat{P}_3$	[sum of ∠s in Δ]	✓A S/R
	But $\hat{P}_1=\hat{P}_3$	[given]	✓A S/R
	$\therefore G\hat{H}J=G\hat{J}H$		✓A conclusion
	$\therefore HG=JG$	[sides opp equal ∠s]	✓A S/R
	$\therefore \Delta GHJ$ is isosceles		(5)
			[19]
		TOTAL MARKS:	**50**

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