KWAZULU-NATAL PROVINCE

EDUCATION
REPUBLIC OF SOUTH AFRICA

PROVINCIAL STANDARDISED ASSESSMENT

GRADE 10

MATHEMATICS P1

PROVINCIAL STANDARDISED ASSESSMENT

JUNE 2026

MARKING GUIDELINE

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MARKS: 50

This marking guideline consists of 5 pages.

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QUESTION 1

1.1	$x = 0$	✓A (1)
1.2	$1 - 3x \geq 0$ $x \leq \frac{1}{3}; x \neq 0$ Answer only: Full marks	✓A ✓A (2)
1.3	$x < 0$	✓A (1)
		[4]

QUESTION 2

2.1	$= 27x^3 - 8$	✓A $27x^3$ ✓A -8 (2)
2.2	$= 2x^3 + x^3$ $= 3x^3$	✓A ✓CA (2)
2.3	$= \left(\frac{1}{a^2} - \frac{1}{b^2}\right) \div \left(\frac{1}{a} + \frac{1}{b}\right)$ $= \left(\frac{b^2 - a^2}{a^2b^2}\right) \div \left(\frac{b+a}{ab}\right)$ $= \left(\frac{b^2 - a^2}{a^2b^2}\right) \times \left(\frac{ab}{b+a}\right)$ $= \left(\frac{(b-a)(b+a)}{a^2b^2}\right) \times \left(\frac{ab}{b+a}\right)$ $= \frac{b-a}{ab}$	✓A LCDs ✓CA simplification ✓CA factors ✓CA answer (4)
		[8]

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QUESTION 3

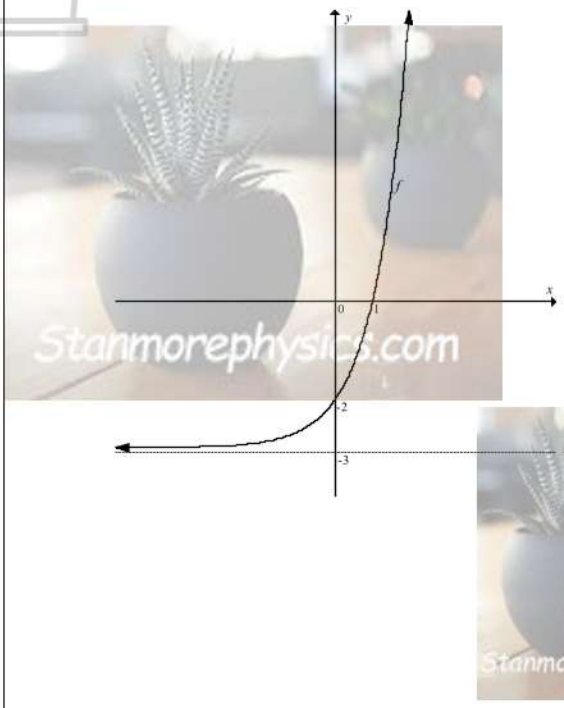
3.1	$=5\left(x^3+\frac{8}{x^3}\right)$ $=5\left(x+\frac{2}{x}\right)\left(x^2-2+\frac{4}{x^2}\right)$	✓A common factor ✓CA✓CA factors (3)
3.2	$x^2(y-3)-36(y-3)=0$ $(y-3)(x^2-36)=0$ $(y-3)(x+6)(x-6)=0$ $y=3$ or $x=-6$ or $x=6$	✓A $-36(y-3)$ ✓CA common factor ✓CA value of y ✓CA both values of x (4)
		[7]

QUESTION 4

4.1.1	$T_n=dn+c$ $=5n-8$	✓A $5n$ ✓A -8 (2)
4.1.2	$7;17;27;37;...$ $T_n=dn+c$ $=10n-3$ $\therefore T_{63}=10(63)-3$ $\therefore T_{63}=627$	✓A n^{th} term/1^{st} 3 terms ✓CA substitution ✓CA answer (3)
4.2.1	$2x-1=3x-6$ $x=5$	✓A differences ✓A equating ✓CA answer (3)
4.2.2	$8\ ;\ 17\ ;\ 26$ $\ \ 9\ \ 9$ $\therefore T_4=35$ Answer only: Full marks	✓CA 1^{st} 3 terms ✓CA answer (2)
		[10]

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QUESTION 5

5.1.1	$f(0) = 3^0 - 3$ $\therefore y = -2$ Answer only: Full marks	✓A ✓A (2)
5.1.2		✓A shape ✓CA both intercepts ✓A asymptote (3)
5.1.3	$3^x - 9 = 0$ $3^x = 3^2$ $x = 2$	✓A $f(x) - 6 = 0$ ✓CA answer (2)
5.1.4	Reflection about the y – axis or about the line $x = 0$.	✓A (1)
5.2.1	$x = 0$ $y = -1$	✓A ✓A (2)

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5.2.2(a)	$\frac{-3}{x} - 1 = -2x - 2$ $-3 = -2x^2 - x$ $2x^2 + x - 3 = 0$ $(2x+3)(x-1) = 0$ $x = \frac{-3}{2}$ or $x = 1$	✓A equating ✓CA standard form ✓CA factors ✓CA values of x (4)
5.2.2(b)	$-4 < \frac{-2x-2}{3} \leq 0$ $-12 < -2x - 2 \leq 0$ $-10 < -2x \leq 2$ $5 > x \geq -1$ or $-1 \leq x < 5$	✓A multiply by 3 ✓A adding 2 ✓CA answer (3)
5.2.2(c)	$x \in \mathbb{R}; x \neq 0$ **OR** $x > 0$ or $x < 0$ **OR** $x \in (-\infty; 0)$ or $x \in (0; \infty)$	✓A✓CA **OR** ✓CA✓CA (2)
5.2.3	$y = -x - 1$	✓A✓A (2)
		[21]
		TOTAL MARKS:50

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