Province of the
EASTERN CAPE
EDUCATION

Iphondo leMpuma Kapa: Isebe leMfundo
Provinsie van die Oos Kaap: Department van Onderwys
Porafensie Ya Kapa Botjhabela: Lefapha la Thuto

CHIEF DIRECTORATE: EXAMINATIONS AND ASSESSMENT

Steve Vukile Tshwete Complex, Zone 6 Zwelitsha, 5608, Private Bag X0032, Bhisho, 5605 REPUBLIC OF SOUTH AFRICA:
Enquiries**: Mr H. West. Tel: 040 602 7031 . Fax: 040 602 7295. E-mail:Hadley.West@ecdoe.gov.za**
Website: www.ecdoe.gov.za

Ref. no.:	13/P	Tel.:	(040) 602 7028/082 391 1342
Enquire:	Mr H. West	Fax:	040 602 7295

<u>NOTIFICATION</u>

TO: **ALL PRINCIPALS OF TECHNICAL SCHOOLS IN THE FET BAND AND DISTRICT HEADS OF EXAMINATIONS**

FROM: **MRS P. E. JAPHTA**
       (a) CES: ASSESSMENTS INSTRUMENT DEVELOPMENT AND ITEM BANK MANAGEMENT SUBDIRECTORATE

SUBJECT: TECHNICAL MATHEMATICS PAPER 1 PREPARTORY EXAMS ERRATA

DATE: 10 September 2024

The Technical Mathematics P 1 Grade 12 for Preparatory Examinations 2024 was written on Friday, the 06 September 2024. We were made aware of an error that was discovered in the marking guidelines of question **2.2, 3.3.2, 4.2.2, 4.2.3, 4.2.4, 5.2.2, 6.1, 8.2** and **9.1.1.**

The amendment with regards to the marking was prepared in conjunction with the Examiner and the Moderator of the paper. This amendment addresses the error and also ensures that Learners are not disadvantaged and so the following standardised approach to marking must be adopted across the province:

ERRATA

	ERROR	**RECOMMENDATION**	**CODE DESCRIPTORS**
2.2	$b^2 - 4ac > 0$ $(2q)^2 - 4(-3)(-1) > 0$ $4q^2 - 12 > 0$ $q^2 > 3$ $q > \pm\sqrt{3}$ $\therefore q > \sqrt{3}$	$b^2 - 4ac > 0$ $(2q)^2 - 4(-3)(-1) > 0$ $4q^2 - 12 > 0$ $q^2 > 3$ $q < -\sqrt{3}$ or $q > \sqrt{3}$	✓ $\Delta > 0$ **A** ✓ Substitution **A** ✓ $q < -\sqrt{3}$ or $q > \sqrt{3}$ **CA** (3)

Province of the
EASTERN CAPE
EDUCATION

Iphondo leMpuma Kapa: Isebe leMfundo
Provinsie van die Oos Kaap: Department van Onderwys
Porafensie Ya Kapa Botjhabela: Lefapha la Thuto

	ERROR	RECOMMENDATION	CODE DESCRIPTORS
3.3.2	$z = 2\text{cis}60^0$ $z = 2\cos60^0 + i\sin60^0$ $= 2\left(\dfrac{1}{2} + \dfrac{\sqrt{3}}{2}i\right)$ $z = 1 + \sqrt{3}i$	$z = 2\text{cis}60^0$ $z = 2\left(\cos60^0 + i\sin60^0\right)$ $= 2\left(\dfrac{1}{2} + \dfrac{\sqrt{3}}{2}i\right)$ $z = 1 + \sqrt{3}i$	✓ $\dfrac{1}{2}$ **CA** ✓ $\dfrac{\sqrt{3}}{2}$ **CA** ✓ $z = 1 + \sqrt{3}i$ **CA** (3)
4.2.2	$x + p = q$ $1 + p = 0$ $p = -1$ $q = 2$	$q = 2$	✓ $q = 2$ **A** **(1)**
4.2.3	$k(x) = \dfrac{m}{x-1} + 2$ $0 = \dfrac{m}{-5} + 2$ $-2 = \dfrac{m}{-5}$ $m = 10$	$k(x) = \dfrac{m}{x} + 2$ $0 = \dfrac{m}{-5} + 2$ $-2 = \dfrac{m}{-5}$ $m = 10$	✓ Substitution **A** ✓ Simplification **CA** ✓ $m = 10$ **CA** (3)
4.2.4	$f(x) = g(x)$ $\dfrac{10}{x-1} + 2 = 2x - 8$ $\dfrac{10}{x-1} = 2x - 10$ $(x-1)(2x-10) = 10$	$f(x) = g(x)$ $\dfrac{10}{x} + 2 = 2x - 8$ $\dfrac{10}{x} = 2x - 10$ $x(2x-10) = 10$	✓ Equating **A** ✓ Simplification **CA**

growth
education

Citizen care line: sikuncede njani - 080 121 2570
Email: customercarecentre@ecdoe.gov.za
USSD: *134*2570#
ECDOE

NDP 2030

	$x^2 - 12x + 10 - 10 = 0$ $x^2 - 12x = 0$ $x(x - 12) = 0$ $x = 0$ or $x = 12$	$2x^2 - 10x - 10 = 0$ $x^2 - 5x - 5 = 0$ $x = \dfrac{5 \pm \sqrt{(-5)^2 - 4(1)(-5)}}{2(1)}$ $x = 5,9$ or $x = -0,9$	✓ Standard form **A** ✓ Factors **CA** ✓ $x = 5,9$ **CA** ✓ $x = -0,9$ **CA** (6)

5.2.2	Total amount owed = R23 808 + R992 = R24 800	Total amount owed = R23 808 + R4 808 = R28 600	✓ R28 600 **CA** (1)
6.1.	$f'(x) = \lim\limits_{h \to 0} \dfrac{f(x+h) - f(x)}{h}$ $= \lim\limits_{h \to 0} \dfrac{-\frac{1}{3}(x+h) - 4 - \left(-\frac{1}{3}x - 4\right)}{h}$ $= \lim\limits_{h \to 0} \dfrac{-\frac{1}{3}x - \frac{1}{3}h - 4 + \frac{1}{3}x + 4}{h}$ $= \lim\limits_{h \to 0} \dfrac{-\frac{1}{3}h}{h}$ $= \lim\limits_{h \to 0} -\frac{1}{3}$ $f'(x) = -\dfrac{1}{3}$	**AO = FULL MARKS**	✓ Definition **A** ✓ Substitution **A** ✓ Simplification **CA** ✓ Further simplification **CA** ✓ $f'(x) = -\dfrac{1}{3}$ **CA** (5)

Province of the
EASTERN CAPE
EDUCATION

Iphondo leMpuma Kapa: Isebe leMfundo
Provinsie van die Oos Kaap: Department van Onderwys
Porafensie Ya Kapa Botjahabela: Lefapha la Thuto

8.2	Also consider:		✓ Coordinates
	$h(0) = -2(0)^2 + 9,2(0) + 2$		✓ Substitution
	$\quad = 2\ ^o\text{C}$		
	$h(2,3) = -2(2,3)^2 + 9,2(2,3) + 2$		
	$\quad = 12,58\ ^o\text{C}$		
	Rate of change $= \dfrac{12,58\ -\ 2}{2,3 - 0}$		
	Rate of change $= 4,6°\text{C}$		✓ 4,6
			(3)

9.1.1	$\displaystyle\int -4^{2t}\ dt = \dfrac{-4^{2t}}{2\ln 2} + c$	$\displaystyle\int -4^{2t}\ dt = \dfrac{-4^{2t}}{2\ln 4} + c$	✓ $\dfrac{-4^{2t}}{2\ln 4}$ **A**
			✓ c **A**
			(2)