Province of the
EASTERN CAPE
EDUCATION

Assessment and Examination Directorate
Steve Vukile Tshwete Complex , Private Bag X0032, Zwelistsha, 5605
REPUBLIC OF SOUTH AFRICA, Website: www.ecdoe.gov.za
E-mail:Nomvuyo.Mbeleki@edu.ecprov.gov.za

Ref. No. 13/P Tel.: (043) 604 7708/082 391 1342
Enquiries: Ms N. Mbeleki Fax: 043 604 7789

TO: **DISTRICTS HEADS OF EXAMINATIONS**
PRINCIPALS OF SCHOOLS IN THE FET BAND

FROM: **CES: INSTRUMENT DEVELOPMENT AND MODERATION SECTION**
MS N. MBELEKI

SUBJECT: **ERRATA – MATHEMATICS P2 GRADE 21 SEPTEMBER 2020**

DATE: **25 SEPTEMBER 2020**

The Mathematics P2 Grade 12 September was written on Monday, 21 September 2020. We were made aware of certain amendments, errors and omissions that were discovered during the marking process.

In order to address this and to ensure that learners are not disadvantaged, the following standardised approach to marking must be adopted across the Province. The following guidelines with regard to marking was prepared in conjunction with the examiner and moderator.

ERRATA

GENERAL NOTE: Consistent Accuracy (CA) applies in the Marking Guideline
ALGEMENE NOTA: Deurlopende Akkuraatheid (CA) word toegepas in die Nasienriglyn

QUESTION 1/*VRAAG 1*

1.1	$a = -4{,}1536$ $b = 0{,}9580$ $y = -4{,}1536 + 0{,}9580x$ **Penalty for rounding** ***Penaliseer vir***	✓ $a = -4{,}1536$ ✓ $b = 0{,}9580$ ✓ $y = -4{,}1536 + 0{,}9580x$	(3)
1.5	$\bar{x} = 60{,}8$ Standard deviation / *Standaardafwyking* = 17, 51 $(60{,}8 - 17{,}51\ ;\ 60{,}8 + 17{,}51)$ $(43{,}29\ ;\ 78{,}31)$ 6 learners / *leerders* **(Accept / *Aanvaar* 7)**	✓ Standard deviation/ *Standaardafwyking* = 17, 51 ✓ $(43{,}29\ ;\ 78{,}31)$ ✓ 6 learners / *leerders*	(3)
			[10]

QUESTION 2/*VRAAG 2*
Apply CA marking including reading from learners' graphs
Pas CA nasien insluitend by die lees van leerders se grafiek toe

2.4	Award 1 mark for Min. and Max. and 1 mark for Q_3	✓ Min and Max / Min. en Maks. ✓Q_3	(2)

QUESTION 3 / *VRAAG 3*

3.6	Alternatives / *Alternatiewe*: PR = $\sqrt{50}$ ✓✓ $\sin\theta = \frac{2\sqrt{10}}{\sqrt{50}}$ ✓✓ $\theta = 63{,}43°$ ✓ **OR / *OF*** PR = $\sqrt{50}$ ✓ PQ = $\sqrt{10}$ ✓ $\cos\theta = \frac{\sqrt{10}}{\sqrt{50}}$ ✓✓ $\theta = 63{,}43°$ ✓ **OR / *OF*** PQ = $\sqrt{10}$ ✓✓ $\tan\theta = \frac{2\sqrt{10}}{\sqrt{10}}$ ✓✓ $\theta = 63{,}43°$ ✓	(5)

QUESTION 4 / *VRAAG 4*

The diagram shifted and some dimensions were not accurate. This caused the question to be opened for different answers when using different methods especially in 4.3 to 4.6.
Die grafiek het geskuif en van die afmetings was nie akkuraat nie. Dit het veroorsaak dat die vraag oop is vir verskillende antwoorde duer verskilledn metodes te gebruik veral in 4.3 tot 4.6.

There is, however, an easy fix.: / *Daar is dus `n eenvoudige regstelling*
Accept the alternatives in 4.4 and apply CA to the remaining questions
***Aanvaar die alternatiewe vir 4.4 en pas CA by die oorblywende vrae toe*.**

4.1	$x^2 - 6x + y^2 - 4y + 9 = 0$ $x^2 - 6x + 9 + y^2 - 4y + 4 = -9 + 9 + 4$ $(x-3)^2 + (y-2)^2 = 4$ $C(3;2)$ and / *en* $r = 2$ **Answer Only: Full MarksS** ***Slegs antwoord: Volpunte***	✓completing square *voltooiing van vierkant* ✓standard form / *standaardvorm* ✓3 ✓2	(4)

4.4	**4.4 alternatives / alternatiewe:** Solve/ *Los op* $y = -2x + 2$ *and* $y = \frac{1}{2}x + \frac{1}{2}$ simultaneously to yield $x = 0{,}6$✓ $y = 0{,}8$ ✓ ∴ B(0,6 ; 0,8) ∴TB = $\sqrt{(-1-0{,}6)^2 + (4-0{,}8)^2}$ ✓= 3,58 ✓ **OR / *OF*** Solve $y = \frac{1}{2}x + \frac{1}{2}$ and circle equation simultaneously to yield x = 1,21✓ $y = 1{,}12$ ✓ B(1,21 ; 1,12) $TB = \sqrt{(-1-1{,}21)^2 + (4-1{,}12)^2}$ ✓ = 3,63✓	(4)

4.6	**4.6** Alternative / *Alternatief*: $T\hat{A}C = 90°$ ✓ $\tan A\hat{C}T = 2$ ✓ $A\hat{C}T = 63{,}43°$ ✓ BCA = 126,86°✓	(4)

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QUESTION 5/*VRAAG 5*

5.2	A common error is to divide by sin P. Awarded max of 2/4 if solved cos P = 0,5 correctly.	(4)

QUESTION 10 / *VRAAG 10*

10.2.4 Common alternative / *Algemene alternatief*:

$\hat{P}_2 = 90°$ (< in semi – circle) ✓S/R

In ΔPQR and / *en* ΔBSR ✓choice of triangles / *keuse van driehoeke*
1) $\hat{P}_2 = \hat{B}_2$ (both / *beide* 90°, proven / *bewys*) ✓S
2) $\hat{R}_2 = \hat{R}_1$ (proven / *bewys*) ✓S
∴ ΔPQR ||| ΔBSR (equiangular / *gelykhoekig*) ✓R

∴ $\frac{RQ}{RS} = \frac{RP}{BR}$ ✓S

∴ BR . RQ = RS . RP

We request that this must be brought to the attention of all educators marking these papers and sincerely apologise for the inconvenience.

Yours in education.

MS N. MBELEKI 25 September 2020 **DATE**