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**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 <i>Penaliseer vir</i>	$\checkmark a = -4,1536$ $\checkmark b = 0,9580$ $\checkmark y = -4,1536 + 0,9580x$	(3)
1.5	$\bar{x} = 60,8$ Standard deviation / <i>Standaardafwyking</i> = 17, 51 (60,8 – 17,51 ; 60,8 + 17,51) (43,29 ; 78,31) 6 learners / <i>leerders</i> (Accept / Aanvaar 7)		$\checkmark$ Standard deviation/ <i>Standaardafwyking</i> = 17, 51 $\checkmark$ (43,29 ; 78,31) $\checkmark$ 6 learners / <i>leerders</i>	(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)
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QUESTION 3 / VRAAG 3

3.6	Alternatives / Alternatiewe: $PR = \sqrt{50}$ ✓ ✓ $\sin \theta = \frac{2\sqrt{10}}{\sqrt{50}}$ ✓ ✓ $\theta = 63,43^\circ$ ✓ OR / OF $PR = \sqrt{50}$ ✓ $PQ = \sqrt{10}$ ✓ $\cos \theta = \frac{\sqrt{10}}{\sqrt{50}}$ ✓ ✓ $\theta = 63,43^\circ$ ✓ OR / OF $PQ = \sqrt{10}$ ✓ ✓ $\tan \theta = \frac{2\sqrt{10}}{\sqrt{10}}$ ✓ ✓ $\theta = 63,43^\circ$ ✓	(5)
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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 verskillende 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 $r = 2$	✓ completing square voltooing van vierkant ✓ standard form / standaardvorm ✓ 3 ✓ 2	(4)
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Answer Only: Full Marks

Slegs antwoord: Volpunte

4.4	4.4 alternatives / alternatiewe: Solve/ Los op $y = -2x + 2$ and $y = \frac{1}{2}x + \frac{1}{2}$ simultaneously to yield $x = 0,6$ ✓ $y = 0,8$ ✓ $\therefore B(0,6 ; 0,8)$ $\therefore TB = \sqrt{(-1 - 0,6)^2 + (4 - 0,8)^2}$ ✓ = 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)
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4.6	4.6 Alternative / Alternatief: $\widehat{TAC} = 90^\circ$ ✓ $\tan \widehat{ACT} = 2$ ✓ $\widehat{ACT} = 63,43^\circ$ ✓ $\widehat{BCA} = 126,86^\circ$ ✓	(4)
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[18]

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)
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QUESTION 10 / VRAAG 10

10.2.4 Common alternative / Algemene alternatief: $\widehat{P}_2 = 90^\circ$ (< in semi – circle) ✓S/R In $\triangle PQR$ and / en $\triangle BSR$ ✓ choice of triangles / keuse van driehoeke 1) $\widehat{P}_2 = \widehat{B}_2$ (both / beide 90° , proven / bewys) ✓S 2) $\widehat{R}_2 = \widehat{R}_1$ (proven / bewys) ✓S $\therefore \triangle PQR \parallel \triangle BSR$ (equiangular / gelykhoekig) ✓R $\therefore \frac{RQ}{RS} = \frac{RP}{BR}$ ✓S $\therefore BR \cdot RQ = RS \cdot RP$

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