

ADDENDUM

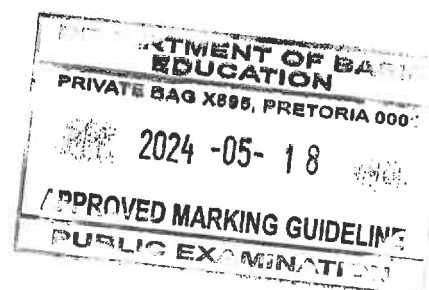
TECHNICAL MATHEMATICS/TEGNIESE WISKUNDE

Paper/ Vraestel 1 June/Junie 2024


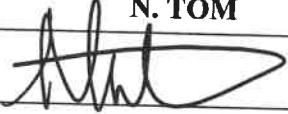

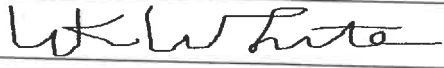
FINAL MARKING GUIDELINES (ADDITIONAL NOTES)

FINALE NASIENRIGLYNE (ADDISIONELE NOTAS)

| ITEM | DESCRIPTION/BESKRYWING |
|----------------------|--|
| 1.1.2 | Accept a number line representation of the closed interval. <i>Aanvaar n getalleglyn-voorstelling van die geslote-interval</i> |
| 2.2 | If the discriminant is not used to calculate the values of k then only the mark for the standard form can be awarded/ <i>Indien die diskriminant nie gebruik word om die waardes van k te bereken nie, kan slegs die punt vir standaardvorm toegeken word.</i> |
| 3.2.2 | Alternative /Alternatief : $\frac{\log 72 - \log 2}{\log 6} = \frac{\log (8 \times 9) - \log 2}{\log (3 \times 2)} = \frac{\log 2^3 + 2\log 3 - \log 2}{\log 3 + \log 2}$ $= \frac{3 \log 2 + 2\log 3 - \log 2}{\log 3 + \log 2} \quad \checkmark \text{ log prop./eienskap}$ $= \frac{2(\log 3 + \log 2)}{\log 3 + \log 2}$ $= 2 \quad \checkmark \text{ S}$ |
| 3.4.2 | Alternative /Alternatief : $= \frac{2 + 3i}{i} \times \frac{i}{i} \quad \checkmark \text{ M}$ $= \frac{2i + 3i^2}{i^2} \quad \text{OR/OF} \quad \frac{2i}{i^2} + 3 \quad \checkmark \text{ S}$ $= \frac{2i + 3(-1)}{(-1)} \quad \text{OR/OF} \quad \frac{2i}{(-1)} + 3 \quad \checkmark \text{ -1}$ $= -2i + 3 \quad \checkmark \text{ S}$ |
| 4.13 4.1.5 4.3 | If intercepts on the axes, turning points or asymptotes are correctly plotted irrespective of whether the curve(s) of the graph(s) is (are) drawn, then the marks as per the marking guidelines should be awarded. / <i>Indien afsnitte op asse, draaipunte of asimptote korrek gestip is, ongeag of die kromme van die grafiek geteken is, moet die punte volgens die nasienriglyne toegeken word.</i> |



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| 5.1.2 | <ul style="list-style-type: none"> Using the compound decay formula / <i>Gebruik van die verval formule</i> MAX /MAKS 1 for/vir P, i and n values/waardes Zero marks if simple growth or decay formulae is used / <i>Nul punte indien enkelvoudige groei- of verval formules gebruik word.</i> |
| 5.1.3 | <ul style="list-style-type: none"> Using the compound decay formula/ <i>Gebruik van die verval formule</i> MAX /MAKS 3 Zero marks if simple growth or decay formulae used <i>Nul punte indien enkelvoudige groei- of verval formules gebruik word.</i> |
| 5.2.1 | <ul style="list-style-type: none"> Zero marks if simple growth or decay formulae/ <i>Nul punte as enkelvoudige groei- of verval formules gebruik word.</i> Using the compound decay formula/ <i>Gebruik van die verval formule</i> MAX /MAKS 3 |
| 6.1 | <ul style="list-style-type: none"> If the given expression is not used in the substitution than only the mark for the correct definition can be allocated. <i>As die geewe uitdrukking nie gebruik word in die vervanging nie, dan kan slegs die punt vir die korrekte definisie toegeken word.</i> |
| 7.3 | <ul style="list-style-type: none"> Accept values given in decimal form/<i>Aanvaar waardes gegee in desimale vorm</i> No penalty if quadratic factor step and/or formula step are omitted/ <i>Geen penaliseering as kwadratiese faktorstep en formulestep weggelaat word nie</i> AO: Full Marks/Volpunte |
| 7.4 | <ul style="list-style-type: none"> If only one of the points (D or E) is correct and no other working is shown award 2 marks./ <i>As slegs een van die punte (D of E) korrek is en geen ander bewerking getoon word nie, ken 2 punte toe</i> |
| 7.5 | <ul style="list-style-type: none"> Accept/Aanvaar in words/woorde: Between 2 and 3 ; greater than $2 + \sqrt{3}$ / <i>Tussen 2 en 3 ; groter as $2 + \sqrt{3}$</i> No penalty if “or/of” is excluded or replaced with “and/en”/ <i>Geen penaliseering indien “or/of” is uitgesluit of vervang word met “and/en”</i> |
| 9.2 | <ul style="list-style-type: none"> 2 marks if candidate only shows correct integral notation and area value/ <i>2 punte indien kandidaat slegs korrekte integrale notasie en area waarde toon.</i> AO: 1 Mark/punt |

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| DATE APPROVED/DATUM GOEDGEKEUR | 11 MAY 2024 |
| EXTERNAL/EKSTERNE MODERATOR | INTERNAL /INTERNE MODERATORS |
| M.A. HENDRICKS | N. TOM |
|  |  |
|  | W. WHITE |
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