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| **LEARNER’S NAME / *LEERDER SE NAAM*** |  |

**NATIONAL SENIOR CERTIFICATE**

***NASIONALE SENIOR SERTIFIKAAT***

**MATHEMATICS P2 / *WISKUNDE V2 (EXEMPLAR)***

**GRADE 10 / *GRAAD 10***

**NOVEMBER 2019**

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| **SPECIAL ANSWER BOOK**  ***SPESIALE ANTWOORDEBOEK*** |

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| **QUESTION *VRAAG*** | **MARKS *PUNTE*** | **MARKER’S INITIAL**  ***NASIENER SE VOORLETTERS*** | **MOD. MARKS/ *PUNTE*** | **INITIALS MOD/ *VOORLETTERS MOD*** |
| **1** |  |  |  |  |
| **2** |  |  |  |  |
| **3** |  |  |  |  |
| **4** |  |  |  |  |
| **5** |  |  |  |  |
| **6** |  |  |  |  |
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| **8** |  |  |  |  |
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| **TOTAL/*TOTAAL*** | **100** |  |  |  |

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|  | **This answer book consists of 15 pages./*Hierdie antwoordeboek bestaan uit 15 bladsye.*** |  |

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| **QUESTION/*VRAAG* 1** |  |
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|  | **Solution/*Oplossing*** | **Marks *Punte*** |
|  | |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 48 | 50 | 52 | 59 | 60 | 68 | 73 | 76 | 76 | 76 | | 78 | 79 | 80 | 81 | 82 | 82 | 84 | 91 | 92 | 98 | |  |
| 1.1.1 |  | (1) |
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| 1.1.2 |  | (2) |
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| 1.1.3 |  | (2) |
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| 1.1.4 |  | (1) |
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| 1.1.5 |  | (3) |

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| 1.1.6 |  | (1) |
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| 1.2.1 | |  |  |  |  | | --- | --- | --- | --- | | Duration/*Tydsduur* | No. of calls  *Aantal oproepe* | Midpoint  *Middelpunt* | *(f*1) (*x*1) | | 2 *x* 5 | 47 | 3,5 | 164,5 | | 5 *x* 8 | 139 | 6,5 | 903,5 | | 8 *x* 11 | 211 | 9,5 | 2004,5 | | 11 *x* 14 | 102 | 12,5 | 1275 | | 14  *x* 17 | 58 | 15,5 | 899 | | 17 *x* 20 | 19 | **A =** | **B =** | | TOTAL/*TOTAAL:* |  |  |  | | (2) |
| 1.2.2 |  | (3) |
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| 1.2.3 |  | (2) |
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| **QUESTION/*VRAAG* 2** |  |

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|  | **Solution/*Oplossing*** | **Marks *Punte*** |
|  | D(– 8 ; – 6)  C( 4 ; 0)  F(– 2 ; – 3)  E(– 5 ; 0)  ***y***  H  G  A(– 2 ; 6)  B(6 ; 8)  ***x***  O |  |
| 2.1 |  | (5) |
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| 2.2 |  | (2) |
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| 2.3 |  | (5) |
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| **QUESTION/*VRAAG* 3** |  |

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|  | **Solution/*Oplossing*** | **Marks *Punte*** |
| 3.1.1 |  | (3) |
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| 3.1.2 |  | (3) |
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| 3.2 |  | (6) |
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| 3.3.1 |  | (3) |
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| 3.3.2 |  | (3) |
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| 3.4 |  | (5) |
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| 3.5.1 |  | (2) |
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| 3.5.2 |  | (2) |
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|  |  | **[27]** |

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| **QUESTION/*VRAAG* 4** |  |

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|  | **Solution/*Oplossing*** | **Marks *Punte*** |
| 4.1 | *x*  *f*  *y* | (3) |
| 4.2 |  | (1) |
|  |
| 4.3 |  | (3) |
|  |
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|  |
| 4.4 |  | (2) |
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| 4.5 |  | (3) |
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| **QUESTION/*VRAAG* 5** |  |

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|  | **Solution/*Oplossing*** | **Marks *Punte*** |
|  | G  D F      C    A B E |  |
| 5.1 |  | (4) |
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|  |
| 5.2 | A        D F      B E C  *x* |  |
|  |  | (4) |
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|  |  | **[8]** |

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| **QUESTION/*VRAAG* 6** |  |

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|  | **Solution/*Oplossing*** | **Marks *Punte*** |
|  | A    *x*    D      P Q *x*      *y*  *t* *y* *t*   B C E F |  |
| 6.1.1 |  | (3) |
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| 6.1.2 |  | (3) |
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| 6.1.3 |  | (4) |
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| 6.2 | A F G        D E       B C |  |
| 6.2.1 |  | (1) |
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| 6.2.2 |  | (5) |
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| **QUESTION/*VRAAG* 7** |  |

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|  | **Solution/*Oplossing*** | **Marks *Punte*** |
|  | *h* *s*    radius = *x*    radius = *x*  Total surface area of a cone =  where *s*  is the slant height of the cone.  *Totale buite-oppervlakte van ŉ keël* =  waar *s die skuinshoogte van die keël is.*  Total surface area of a hemisphere =  *Totale buite-oppervlakte van ŉ hemisfeer* = | (4) |
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| **Additional space/*Bykomende ruimte*** | | **Marks *Punte*** |
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| **Additional space/*Bykomende ruimte*** | | **Marks *Punte*** |
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| **TOTAL/TOTAAL:** | **100** |