**ITRW222**

**TEST 2 / TOETS 2**

|  |  |
| --- | --- |
| 1 Gebruik die *τ -* notasie om die looptyd van die volgende programlyne te bepaal. (15) | *Use* ***τ******-*** *notation to determine* ***the running time*** *of the following program lines (15)* |
| 1. for ( int i=0; i<=(n+1); i++)  2. b=arr[i]+1 | |
| *1a* | |
| *1b* | |
| *1c* | |
| *2* | |
| *Totaal/ Total* | |

|  |  |  |
| --- | --- | --- |
| 1. 2 Bepaal die looptyd van al drie dele van lyn 8 **in konteks van hierdie programdeel**. Jy hoef nie die uitdrukkings te vereenvoudig nie. Maak gebruik van die vereenvoudigde model. (8) | | *2. Determine the running time of all three parts of line 8* ***in context of this program segment.*** *You need not simplify the expressions. Use the simplified model. (8)* |
| 1 public class Question1.2  2 {`  3 public static int numbers (int n)   1. { 2. int prod = 1; 3. for (int i=1; i<n; i++ ) 4. { 5. for ( int j=1; j<=; ++j) 6. prod \*=(j+2); 7. } 8. return prod; 9. } 10. } | | |
| 8A | | |
| 8B | | |
| 8C | | |
| 3 Gee die bewys van die vergelyking: (5) | *3.* Give proof for the following equation: (5) | |
|  | | |
| 4 Gebruik die vergelyking van vraag 4 om die volgende uitdrukking te vereenvouding: (7) | *4. Use the equation in Question 4 to simplify the following expression: (7)* | |
|  | | |
|  | | |

Open space to use - clearly indicate which question you use it for.