**Year 11 to Year 12 Transition Paper**

**Trigonometric Identities and Equations**

**Mark Scheme**

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| --- | --- | --- | --- |
| **Part** | **Working or answer an examiner might expect to see** | **Mark** | **Notes** |
| **1** | tan 30° = , sin 30° =  | M1 | This mark is given for find two exact values of tan 30° and sin 30° |
|  ×  =  | A1 | This mark is given for a correct answer only |

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| --- | --- | --- | --- |
| **Part** | **Working or answer an examiner might expect to see** | **Mark** | **Notes** |
| **2** | 1 | B1 | This mark is given for the correct answer only |

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| **Part** | **Working or answer an examiner might expect to see** | **Mark** | **Notes** |
| **3** | When *x* = 90, *a* cos *x*° = 0 so *b* = 1 | 1 | This mark is given for finding the value of *b* |
| When *x* = 0, *a* cos *x*° = 2 so *a* = 2 | 1 | This mark is given for finding the value of *a* |
| When *x* = 45, 2 cos *x*° + 1 = 2 × + 1 | 1 | This mark is given for finding an expression for 2 cos *x*° + 1 when *x* = 45 |
| 1 + √2 | 1 | This mark is given for the correct answer only |