|  |  |  |  |
| --- | --- | --- | --- |
| Q4 | (a) | *f* and *g* are functions such that |  |
|  | (i) | Find |  |
|  | (ii) | The value of when |  |
|  | (iii) | The value of when |  |
|  | (iv) | For what value of is |  |
|  | (v) | Evaluate |  |
|  |  |  |  |
|  | (b) | Using the same axes and the same scales, graph the functions  in the domain  Use the graph to find, as accurately as you can |  |
|  |  |  |  |
|  | (i) | The roots of the equation |  |
|  | (ii) | The roots of the equation |  |
|  | (iii) | The minimum value of |  |
|  | (iv) | The range of x values for which |  |
|  | (v) | The values of for which |  |
|  | (vi) | The values of for which is increasing |  |