| 9 | The points A and B have coordinates $(2, 9)$ and $(10, 3)$ respectively. | |
|---|---|-----|
| | The point M is the midpoint of AB . | |
| | | |
| | (a) Find the coordinates of M . | (2) |
| | (b) Find the length of <i>AB</i> . | . , |
| | (b) I find the length of Tib. | (2) |
| | The line l is the perpendicular bisector of AB . | |
| | (c) Find an equation for l giving your answer in the form $ay = bx + c$, where a , b and c | |
| | are integers. | (4) |
| | | (4) |
| | The point D lies on l and has coordinates $(d, 2)$. | |
| | (d) Find the value of d . | (2) |
| | | (2) |
| | The point E lies on l and is such that $DM : ME = 1:2$ | |
| | (e) Find the coordinates of <i>E</i> . | (2) |
| | (f) Find the area of the bite AEDD | (2) |
| | (f) Find the area of the kite <i>AEBD</i> . | (4) |
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| Question 9 continued | |
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| Question 9 continued | | | | |
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| Question 9 continued | | | |
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| | (Total for Question 9 is 16 marks) | | |

