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| Q1 |  |  |
| Q2 | Centre (-4,5) and radius | * Centre (-4,5) |
| Q3 | Proof | * Repeated root /   hence tangency |
| Q4 |  | = 0  = RHS Hence lies on the circle |
| Q5 |  | * Centre big circle (10,12) * Centre small circle (10,14) |

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| Q6 | a) |  |
|  | b) |  |
|  | c) |  |

Total 26