# Use of completing the square to sketch quadratics

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| **Complete the square for the quadratic EXPRESSION**  **f(x)** | **Write down the coordinates of the TURNING POINT of the quadratic graph** | **Write down the ROOTS, ie solutions to**  **f(x) = 0**  **(if any)** | Sketch the quadratic GRAPH showing any intercepts |
| Example  =  = | **(-1,3)** | try to solve...  Not possible so no roots  [Note – could also see determine no roots from:  shape of curve and TP  or use of discriminant] | 4 |
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# Completing the square (continued)

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| **Complete the square for the quadratic EXPRESSION** | **Write down the coordinates of the turning point of the quadratic GRAPH** | Sketch the quadratic GRAPH |
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