Quadratic Formula from Completing the Square method

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| **Step** | **What to do** |
|  | Start with quadratic equation |
|  | Divide both sides by a |
|  | reduce |
|  | Subtract c/a from both sides |
|  | Complete the square and add to both sides.  (Take one-half of the x component and square it) |
|  | Factor left side using Binomial square rule |
|  | Find common denominator of fractions on right side |
|  | Combine fractions on right |
|  | Take square root of both sides. Remember to keep positive and negative roots. |
|  | Reduce square root on right |
|  | Subtract b/(2a) from both sides |
|  | Combine as single denominator.  You are done! |