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|  | **Level** | | | | |
| **R** | **1** | **2** | **3** | **4** |
| **Description**  **2%** | Missing | Useless  Contained numerous English errors. | Adequate but missed some key points  Several English errors. | Thorough and  mostly well written. | Thorough and very well written |
| **Instructions for using the software**  **3%** | Missing | Useless | Present but vague or inaccurate. | Thorough and  fairly easy to follow. | Thorough and very easy to follow |
| **List of functions and arguments**  **15%** | Missing | Functions were poorly chosen, poorly named and poorly described  The list bore little resemblance to the Python code. | Some functions were logically chosen and named, but there were several inaccuracies  The list covered some of the functions in the Python code, but there were several mismatches | Most functions were logically chosen, logically named and well described  The list covered most of the functions in the Python code, with 1-2 mismatches | All functions were logically chosen, logically named and well described  The list covered all of the functions in the Python code |
| **Test cases**  **15%** | Missing | 1-6 cases provided  Test cases covered only a few types of inputs | 7-9 cases provided  Test cases covered some possible inputs, but missed several key types | 10 or more cases provided  Test cases covered a range of inputs, but missed an important type | Well over 10 cases provided  Test cases covered the full range of possible inputs |
| **Team work**  **15%** | The team was completely ineffective | The team did not work productively and needed many reminders to stay on task  One or two members carried the whole team, while others were allowed to hang back and do very little. | The team worked productively sometimes but needed reminders to stay on task  Members tried to divide the work but had difficulty ensuring that everyone did their fair share | The team worked productively for most of the project.  All members did their fair share of the work on most days | The team worked productively throughout the project.  All members did their fair share of the work everyday |

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|  | **Level** | | | | |
| **R** | **1** | **2** | **3** | **4** |
| **Extracting coefficients**  **10%** | Missing | Program only takes a, b, c as input | Program has a function that takes a trinomial as an argument and returns the coefficients, but with major errors | Program has a function that takes a trinomial as an argument and returns the coefficients, but with a minor error | Program has a function that takes a trinomial as an argument and returns the correct coefficients |
| **Factors trinomials with a = 1**  **25%** | Missing | Attempts to find factor pairs for c and the matching pair, but neither one works | Is able to find the factor pairs of c, but does not find the right match | Works on most examples  (fails whenever c < 0)  (doesn’t identify differences of squares) | Works perfectly on all examples, including differences of squares and trinomials with negative coefficients |
| **Factors trinomials with a > 1**  **10%** | Missing | Attempts to find factor pairs for a and c, and to find the matching pair, but neither one works. | Is able to find the factor pairs of a and c, but does not find the right match | Works on most examples | Works perfectly on all examples, including differences of squares and trinomials with negative coefficients |
| **Pulls out the GCD as a common factor**  **5%** | Missing | Attempts to find common factors but does not work at all | Pulls out a common factor, but doesn’t include it as part of the factorization. | Works on most examples | Works perfectly on all examples, |