|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Math Assignment Score: | 1 | 2 | 3 | 4 |
| Explanation: | Completes little to none of the assignment with little to no accuracy | Completes part of assignment with partial accuracy | Completes full assignment with partial accuracy | Completes full assignment with full accuracy |

|  |  |  |  |
| --- | --- | --- | --- |
| Assignment | Total Score / Percent | Rubric Score | Notes |
| A1: Add/Subtract Polynomials | 15/20  75% | 3 | Inconsistent in answer form – some are put in standard form some are not  Have a hard time combining linear terms  I noticed that the more steps a problem required the more mistakes it made – it would change coefficients or variables |
| A2: Multiply Complex Numbers | 15/20  75% | 3 | Again, problems not put in correct complex number form  I was impressed that it knew the variable i made it a complex number |
| A3: Exponent Properties | 5/20  25% | 1 | I don’t think chatGPT knows the rules of exponent properties |
| A4: Factor Trinomials | 10/14  71% | 3 | When there was leading coefficient other than 1 is when it started to make mistakes – very similar behavior to my high school students |
| A5: Quadratic Formula | 8/8  100% | 4 | This one has the least number of problems so far and it requires the same process everytime - I wonder if that makes a difference?  It showed the formula and all the steps for each problem – most impressed with this one so far |
| A6: Complete the Square | 8/8  100% | 4 | This one also explained all of the steps and was very accurate |
| A7: Graphing Quadratic Functions | 1/8  12% | 1 | This one was pretty bad. I don’t know if it was my computer or the software itself but everywhere that was supposed to show a graph it just said: ‘the image you are requesting does not exist or is no longer available)  For most of them it found the vertex for you but then basically told the user it had to come up with the intercepts on their own  For the problems in factored form for the vertex it said: (-1, something) |
| A8: Parent Functions and Transformations | 10/20  50% | 2 | Wasn't able to translate the absolute value function |
| A9: Triangle Angle Sum | 3/12  25% | 1 | I don’t think it was able to translate the image of the triangles accurately because the only ones it got right were the simplest ones |
| A10: Solving Right Triangles | 0/12  0% | 1 | It attempted to solve the first three then said “You can continue solving the remaining triangles using similar trigonometric and Pythagorean Theorem methods. If you have specific questions about any of the triangles, feel free to ask!”  Asked to solve triangle but only solved for sides and still got them wrong |
| A11: Applied Pythagorean Theorem | 8/8  100% | 4 | Definitely did better with word problems rather than just numbers/diagrams |
| A12: Conditional Probability | 4/16  25% | 1 | Explained the numbers that would be in the table and the venn diagram, but did not actually show what they would look like  Some of the numbers in the table were wrong so that made the probability calculations wrong  Did computations for the probabilities but expected the user to find the final answer |
| A13: Long Division | 1/8  12% | 1 | After inputting the worksheet multiple times, it would only solve the first two problems and then told the user to do the rest on their own  Did the second problem wrong |
| A14: Inverse of Linear Functions | 1/24  4% | 1 | Only solved the first 6 problems then told user to do the rest on their own  Of those 6 problems, only got one right |
| A15: Simplify Rational Expressions | 11/14  78% | 3 | Did pretty well, struggled after factoring when it needed to just simplify numerator and denominator |

|  |
| --- |
| Conclusions |
| * ChatGPT cannot do geometry * Generally does quite well with word problems * Does not like diagrams * Starts to make mistakes when multiple steps are required * Very inconsistent * Unable to show graphs/tables/diagrams * Struggles with fractions |