Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Algebra II

Score: \_\_\_\_\_\_ / 20

Period: \_\_\_\_\_\_\_\_\_\_\_\_\_ **Cumulative Review #4.1**

***Directions:*** Show all work in order to receive full credit. A correct answer with no supporting work will only receive one credit. Be sure to show all appropriate formulas and formula substitutions as part of your work.

1. What are the solution(s) to the system of equations shown below?



1. a) Algebraically determine the roots, in simplest  form, to the equation below.



b) Consider the system of equations below.





The graph of this system confirms the solution from part *a* is imaginary. Explain why.

1. What is the inverse of the function ? **Show all work in order to receive full credit.**

 (a)  (b)  (c)  (d) 

1. Consider the system of equations below:



Which number is *not* the value of any variable in the solution of the system? **Show all work in order to receive full credit.**

1. -1 (b) 2 (c) 3 (d) -4