IB Math HL 2 Exit Slip #2

1a. Find the values of *p* for which the following system of equations has no solutions.



b. Given that the system of equations can be solved, find the solutions in the form of a Cartesian equation of a line.

c. Write the Cartesian equation of a plane parallel to the line in part b and containing the line .

2. Let .

a. Write the roots of  in terms of  and plot them on an Argand diagram.

b. Explain why .

3. Find the 5th roots of .

4. Given that  is a root of the equation , , find the value of b and the value of c.