Question 1

Let b and d be distinct nonzero real numbers and c any real number .Prove that

{ b,c +di } is a basis of **C** over **R**.

Hint-For any r + si **C,** r +si=)*b +.*Hence{b,c + di} spans **C** over **R.** Prove that it is also linearly independent over **R**.

Question 2

If a+bi**C** and b,prove that **C**= **R**(a +bi).

**C**-complex

**R**-reals