Answer to Question #83127

Let us consider the map f: Z+xQ[x] -> Z_2 which maps any polynomial into the residue modulo 2 of the last coefficient. This map is homomorphism as a composition of standard last coefficient homomorphism Z+xQ[x] -> Z and Z -> Z_2. Ker(f) = <2, x>. Z_2 is a field. By the homomorphism theorem (Z+xQ[x])/<2,x> is isomorphic to Z_2, hence it is a field. So <2, x> is by definition maximal.