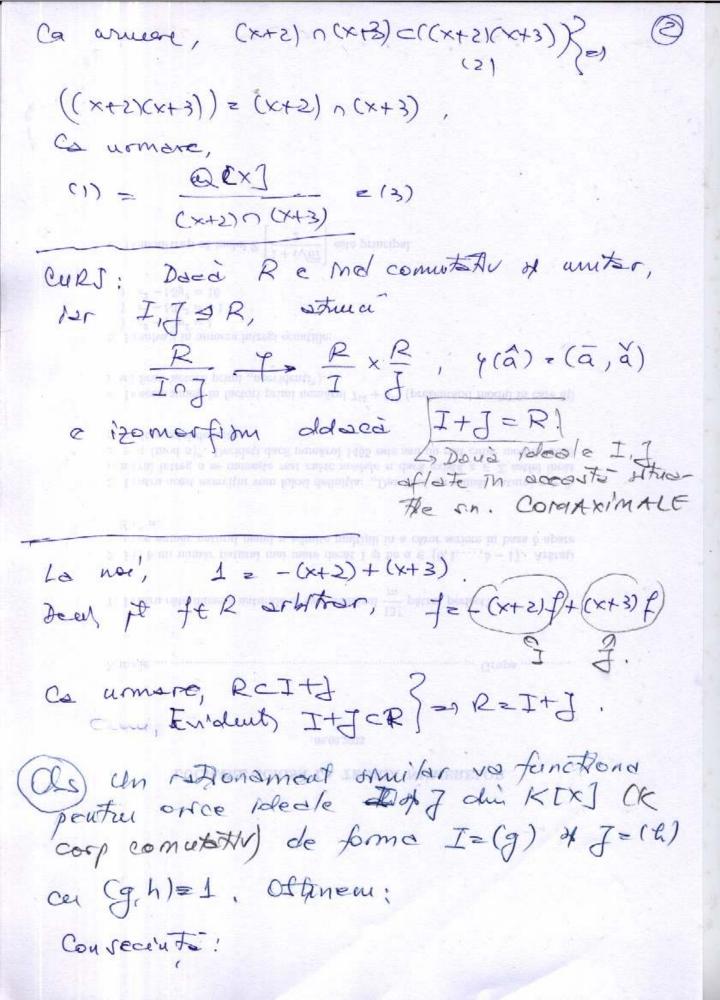
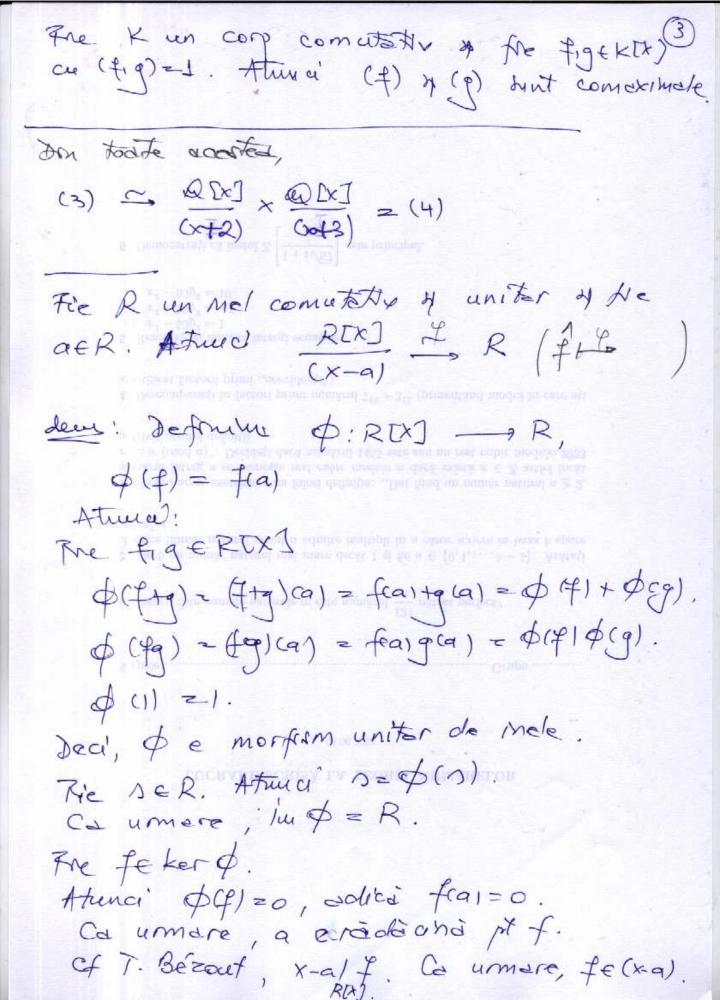
SEMINAR14_132

(133): RCX) - L-am , descres (x2+1) - Am wraitet coi a 120 most con R Ne poeten pune mtrebad de genuli 1) Daca factoream KIM (K find un corp comutativ) atotr-un ideal poincejal obtenem intotalea-R. N/ce' pomeneold! $3 \cdot ex : Q[x] = Q[x]$ $(x^2 + 5x + 6) = ((x + 2)(x + 3))$ Evident, ((x+2)(x+3)) c(x+2) } =) ((x+2)(x+3)) C (x+2)((x+3). (2) Recipros fre f E(x+2) (x+2). Atuna fe (x+2) & fe(x+3), deci Jg, h e@ [x] f= (x+2)g n f= (x+3)h. and Pt a con gh (x+2) q= f= (x+3). h. Ca wrmane, -9(-3) = (-3+3)4(-3)=0 Deci -3 e rédécation pt 9. cf T. lui Bézant, x+3/9, de a' existal leQ(x) aga moit g= (x+3)? la urmane, existral le la Ext sittel co f = (x+2)q = (x+2)(x+3) P, D=w), ≠€ ((x+2)(x+3))





Receptor, doce g= (x-a)h + (x-a),
domina deg) = g(a) = (a-a)h(a) = 0, de y
g \in |eer \bar{\phi}. Conform teoremen fundamentale de izomer-from pt Mele, $\frac{R[x]}{(x-a)} \xrightarrow{\chi}_{R} \left(\varphi(\hat{\varphi}) = \varphi(a) \right)_{\alpha}$ In cele de mad sus, (4) = Q XQ Ne ramution: Orice corp & NEC INTEGRY! Derugn Q x Q aven (1,0).(0,1)=(0,0)

Ca umare, Qx Q me e mel ntegni, de ci un e corp.

The consecution, unti (x21x+6) nu e copa a) In a condity K[x] = corp? RI Fre K un corp comutativ of fre fe KIXI.

Attendi KIXI e corp doloció fe ireductibil. den: "> Doca prefuguencem cà f e reductibil,
el se poste sorte ca gh cu (9,4)=1, p gradge13, gradh

Almuce ktx) = ktx] ~ ktx] ~ ktx], core nu (1) o corp, contraditore " Fre fekth (363 Atunci FAF. f found is reductabil, (f, 7)=1 Ca urmare, exista q.GEKTXJ agos modt f9+FG=1, De 284, $(f_1^2+f_2^2=1)$, dea' $f_2^2=1$.

Ce umare, $f_1^2=1$ enversell Aceste contidorato no alargero " With de corpord comutative, dun dotare: Q,R,C Q(va), Q(iva) ou de Nisa3 liber de 17 · Kp, p pour. New eatry! -KCX], K con commetation, fexix) reduce (6-2) x (200) 4(a) 4(a, a) ((xx)(xx)) · (T, 0) 1×+1 1x+2 +>00

Ne reamittue: ((c-2)(x+11)) = {a++b: a, L&Q, += x}. { yeax+4) = (T, 8) (-) , y(ax+1) = (T, 0) (=1 (axts, axts) = (Tō) es (ax+1-1; x-2 n ax+6: x+1)(e) 2015-1=0 ~ atteo (et pere) I venticere (un treture pusa pe 3x+3=3(x-2)+3+2=3(x-2)+ $\frac{1}{5} + \frac{1}{5} = 1$ $\frac{1}{5} \times \frac{1}{5} = \frac{1}{5} \times \frac{1}{5} \times$ Deer 1 deer (8-x-2) = 20, 1, 3x+3 H-3x+3} R not QCX] (X2+6X+9) 1. E corg? Nu, cold x+3 =0, deal tre elemente to 2. E Bomoef un Q xQ? (var Maxa) = Max 3. Care - 8 aleen. viil potente? xuma) > 4 - relevente tente? (03x60) = 19 (a2+5) = 0 @1 ax+s = 0 (=) (ax+s)": (x+3)2 (s) 6=3a/ ato 1 m=2, dea' axthea(x+3)

Receppor, por mice aco (a (4+3)) = a(Kt3) = a(Kt3) = 0 Ca armore N(R) = fa(x+3): a ER?. Be Azax+6 ∈ Idemy (R). Atavai A=A, alexi (ax+b) = ax+b, 2 disco a 2 x + 2 ab x + b 2 = a x + b, addici - 602x - 902+206x + 62 = 0 x+6, szu, echibretent (-602+2abra) x + (-902+6-5) =0. (1) Cum representates ? ax+6! and EQ, x2+6x+9=0} & his R (-- (4e)-1,13 v } = 3a+2) (--) (--) (++)-4.13. Dece (Ideuptil) = 3-1,13