§12.1 Unimodulore	rate	og inva	ible 1	Noutrisa	1
(filly not notros	- fin	Magum,	, yAn	algbaic	inalution
Ets: Rim-knodreur TCp =	Cp X Txt	syllish > III > 7 Prin pic	3p]	a odo	s progradu d
Feil Usorgn fra a broke es alle module and ZG pojehane	di i	Por esi:		6 0 00	dela grope, E
" Kummer fail 150 3 rilberte" Kummer fail 150 3 rilberte	F 51 23 29 31 37 41	9 3 (7)	-	3	ngdig Cherising)
	43	1/21 1/5 \$	7/139		

Ves p sa. IBp] ille er er PID- Vels 2 P som ite or hoselided. Doddis-gener projektiv model / \$13p]. 1 T[3p], la $p = (1-3p)^{p-1} = (p)$ op & spec (TERI) ZBello ~ Plapp ~ Fp sh iron idealer mellom NP os P. Gerandis fallossin avident i [[3p]) the kenteret i mine Har a somofi x: jn# Z ~ ja# P = Prop iz/ si > Fp We for bod if # P = P (ij (-) star tie på file (tonsoising))

tilenberg Swindle van vi drapper bower am addisgrerenter, blir pojelise moduler Past les P propher modul, sa of friendel F sa Pot & fi-Bois Vels R S.a POQ or fro, og ka F= (POQ) = (POQ) @ (POQ) a. Stor : §13 on Read grapper Duck module of have k-vodul. M = Home (M,R) M versore Remodul souther RXM -> M (r, P) -> (rf rf(or) = rf(m) For finler (-) : Mode - 2 Mode MHD INV (additive function)

10 To this Mad son pageliar 0 P AR · (MON) = MON projetor = D M Samme ogrskyp. $\mathcal{R}^{\vee} = \left(\mathcal{P} \right)^{n} \triangle \mathcal{R}^{n}$ · Fir indusor grapeabilding to R => to Rep 13 8 2 100 130 FU alle P. ME P(R) Y R kommunovis. 5 C TC mile lubbraresde. Var et $\vec{s}(\vec{n}) = (\vec{s}\vec{n})$ $\vec{S}' \text{ Hom}_{\mathcal{R}}(M,R) \simeq \text{ Hom}_{\vec{S}'R}(S'M, \vec{S}'R)$ SES, KE Ibyz (M,R), definet six & Hom, (-,-) / six (in) = x(m) Injeture treng M end. sm

Sun M projeknie TA

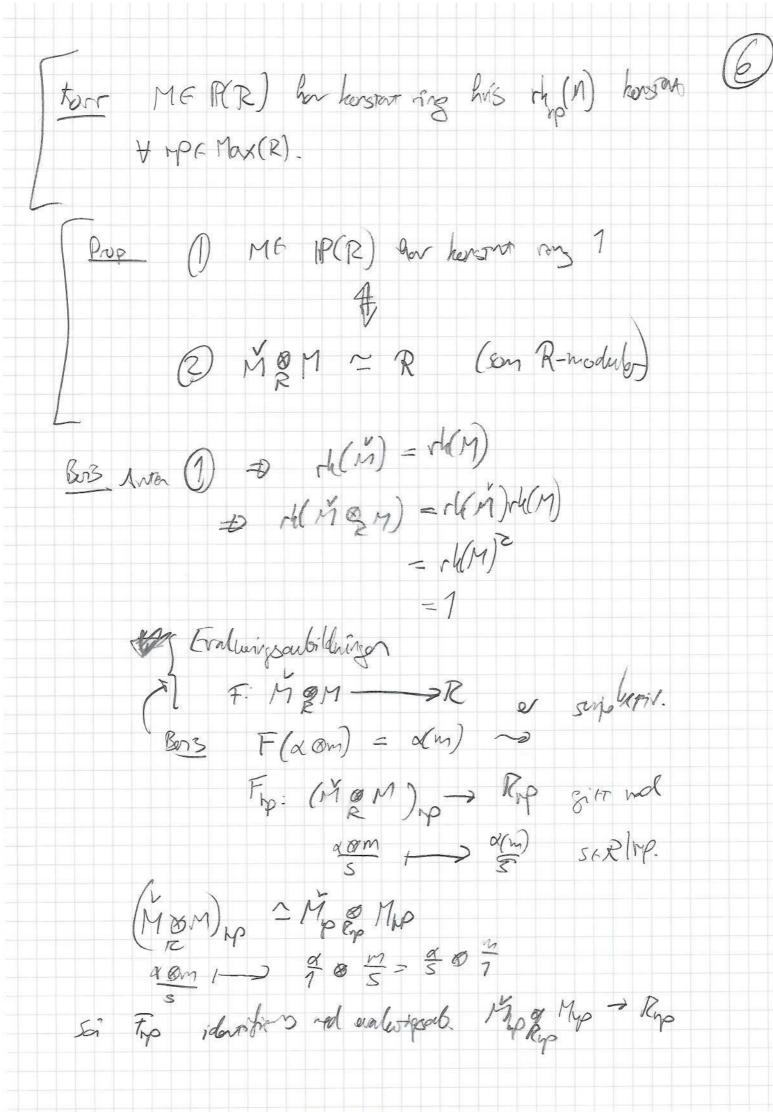
For an $pespec R \Rightarrow M_p = (M)_{mp}$ (5)

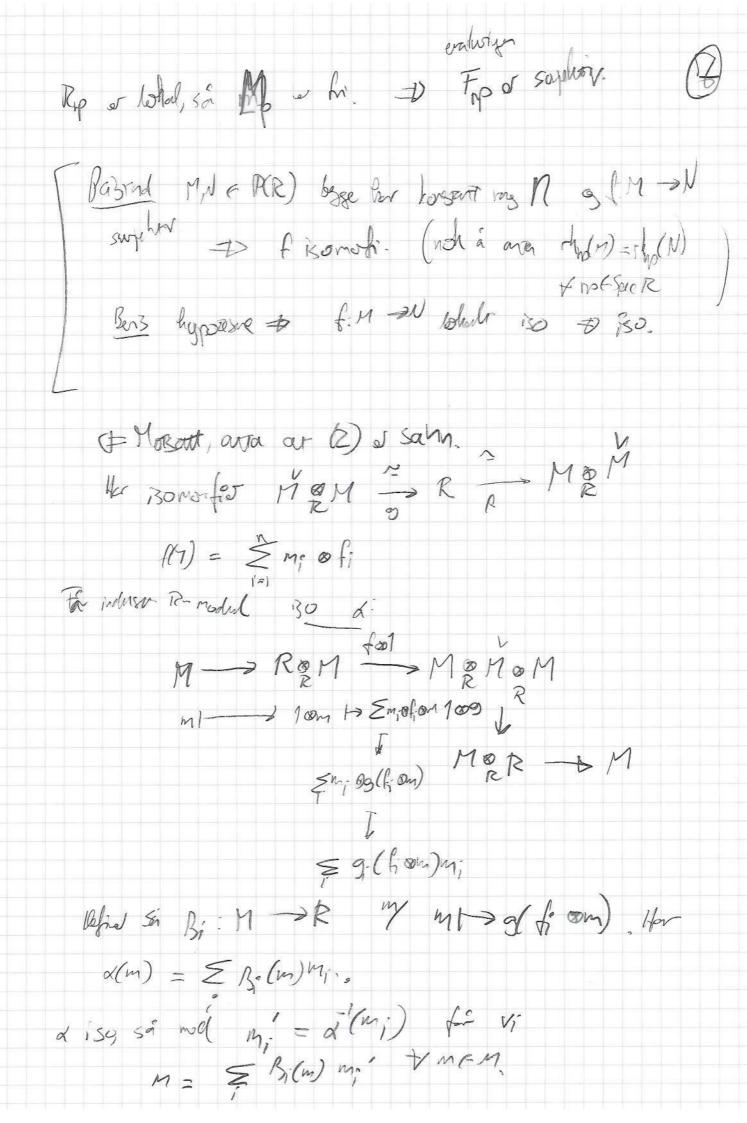
Me pR)

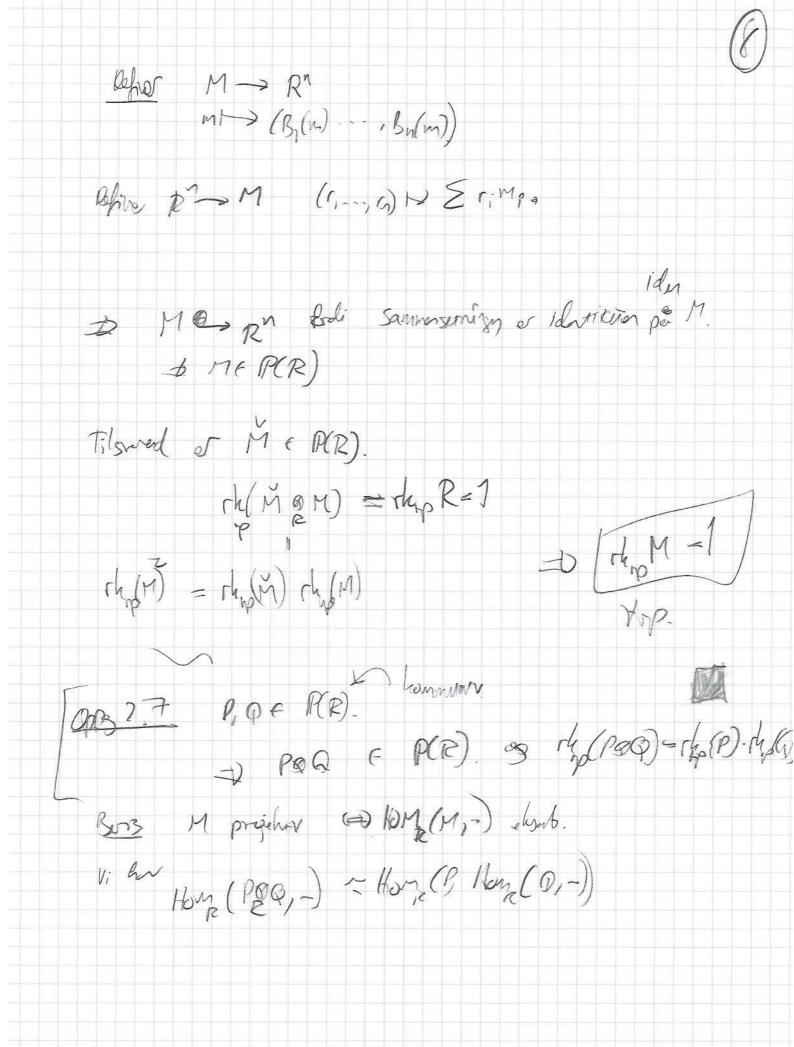
The $p(M) = rk_p(M)$ (5) Benetains orkp(M) or bilder an [M] ∈ toR : to(Rp)=2. Ford: [Rip & M] = [Mp] = [Rip] E to Rip. Mp of fri boli Rop or lohal. Ane pcg & SecR. Ver er [kip (M) = rhq (M) YMCP(R) Bers Ry Ry My-avb. to Ry To Ryp

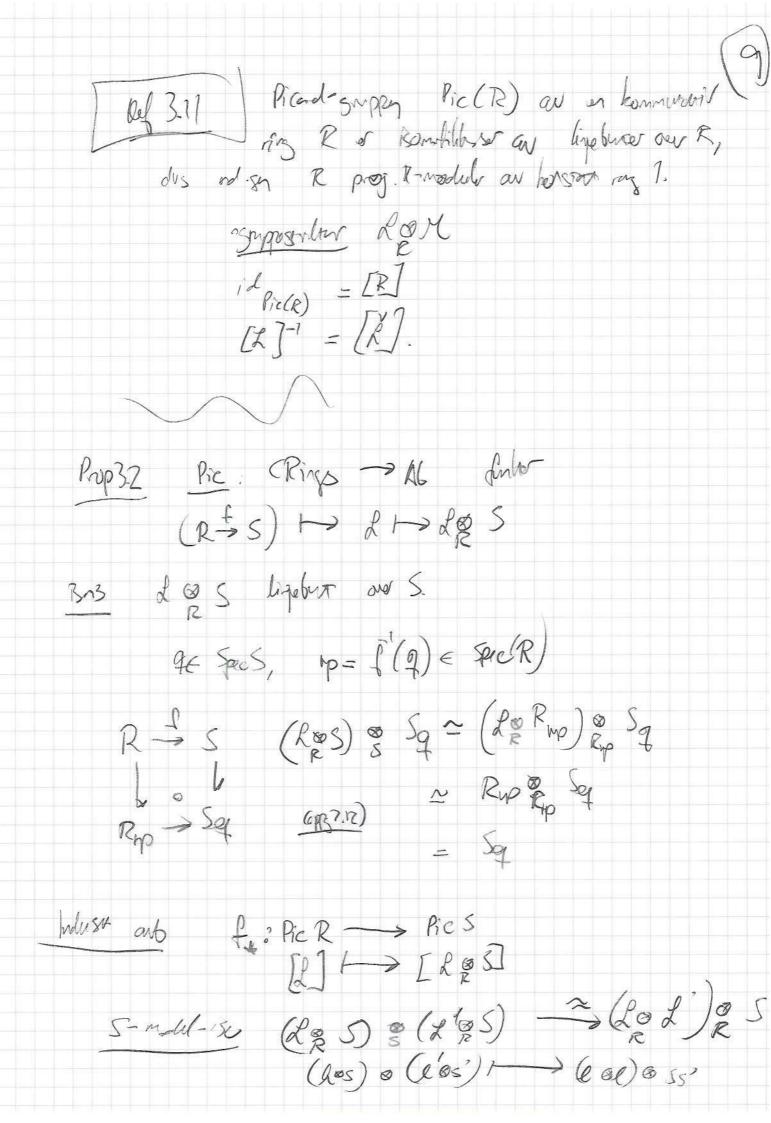
Rep

(+ Kenwhair MAN) (+ benularing over) tos R interialsancide & regard harson VME AR) Bers (O) E Spac R. D MyDON = Mg (M)

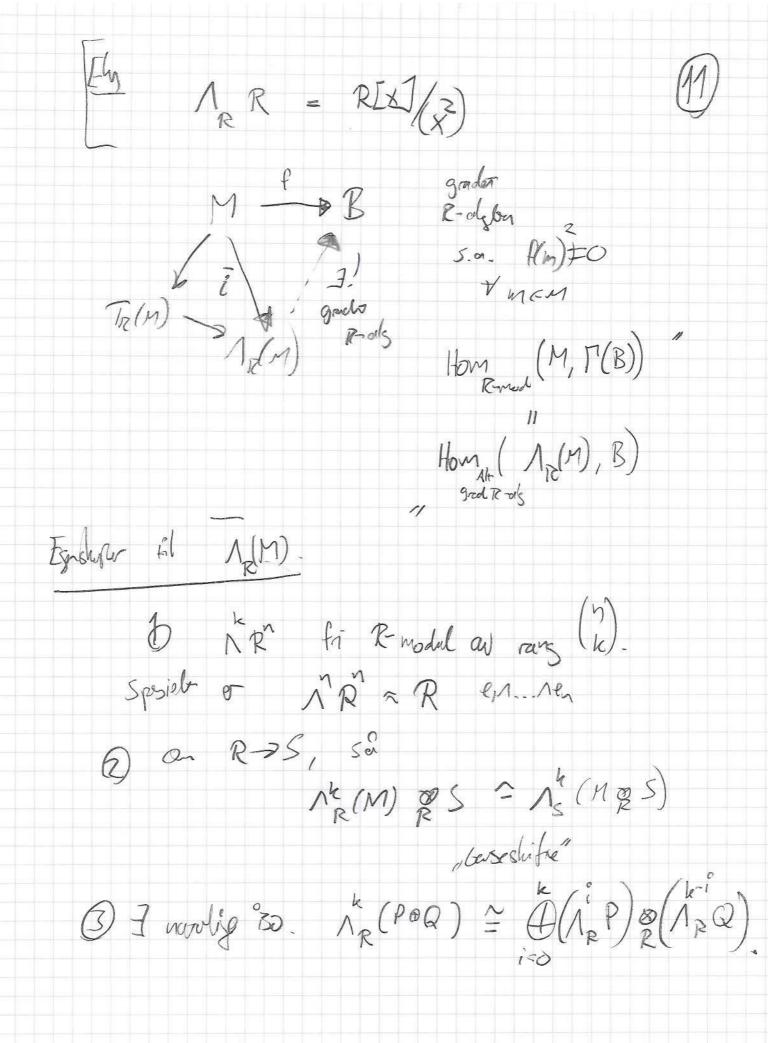


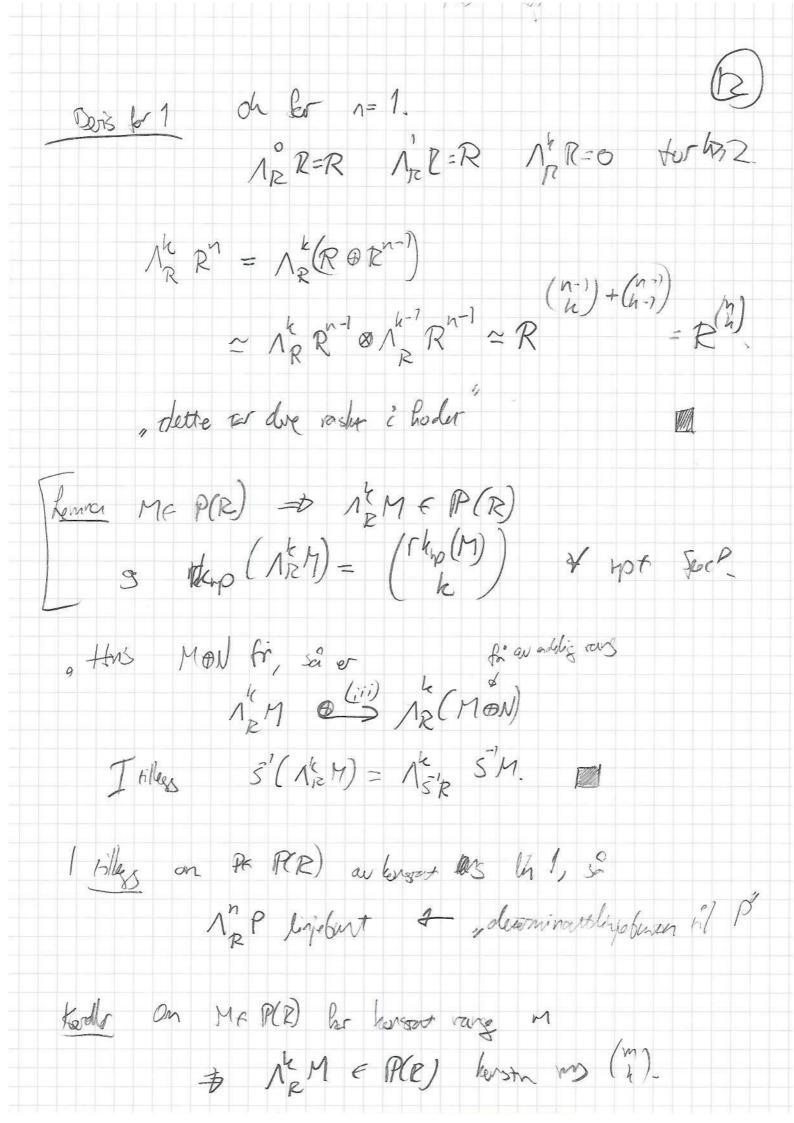






 $f_{a}([l]) \cdot f_{a}([l]) = [(l \otimes S) \otimes (l \otimes S)]$ = [(2 & L') @ S] = f([l, l, l]) = f([l, l, l, l])Vidre er (fog) = frog. (gold selv C) (I) o Tensor-algebraer $T_R(M) = \bigoplus M^{\otimes k}$ The true of the state of the s 9 R-algebra - STINGET. (Sammensetning/juxtaposition) Show M. 1 - 1 1/2 to bilde





(B) R kommutativi ingræssmåde. my F rithmende brokkerps Briddert idel 0 # R -insbrudil IS PR FF, I au F s.er. les podutos au trolere ideales. Betegn My Free (R) moroides au bruche idealer.

(id = R) "morbelt" on I JEFFER (R) sa. IJ=R. (Herslere halls disse for Conte diviser)

On fe Ft > fir and for ideal div(b) = fR som

e involut (Sdr (fR) · (f'R) = R).

Gir aubildring div: $F^{*} \longrightarrow Cor(F)$ bridge idele Frac(id) $F = \mathbb{Z}[FS] = F = \mathbb{Q}(FS).$ $I = (3) 1 + FS). \quad \text{Handon } I$ Ether elemen i I'w per form 3 for a, b & I, foli 3 F.I. Berigeln for at XFI e as