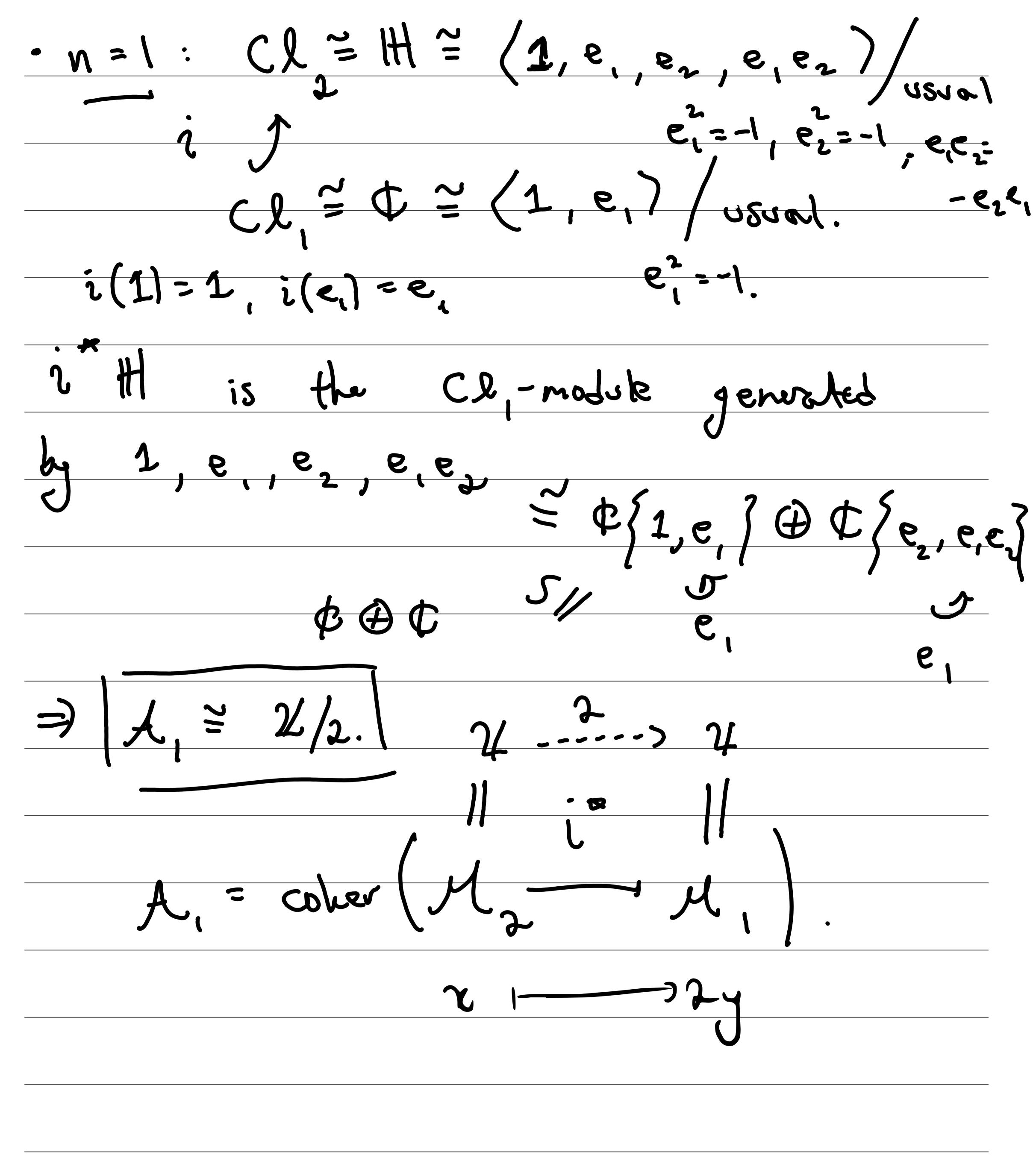
February 13
We begin our dive into the construction
of Atiyah-Bott-Shapiro.
U = Grothendirch group of
2/2 graded Clifford modules.
Grothendiech group of (ungrode) Clifford modules.
We have seen that
$\mathcal{M}_{\Lambda} = \begin{cases} 2 & n \neq 0, 4 \text{ mod } 8 \end{cases}$
2494 n = 0,4 mod 8.
- 22 n + 3,7 mod 8
(24)4 , n=3,7 moss.

Prop: There is an equivalence of contegories R: Modern Modern We define S: Mod CD. - Mod CD. $\frac{S(n) = Cl_n \otimes h}{cl_n}$ the grading is induced from the one on Cln. 5 = R(M) = S(M°) = CR & M° 28m + Ros(h) = k(ch'8) = he; ? o.n.b. e.·(-): 41° — H

Conthendick group of ?

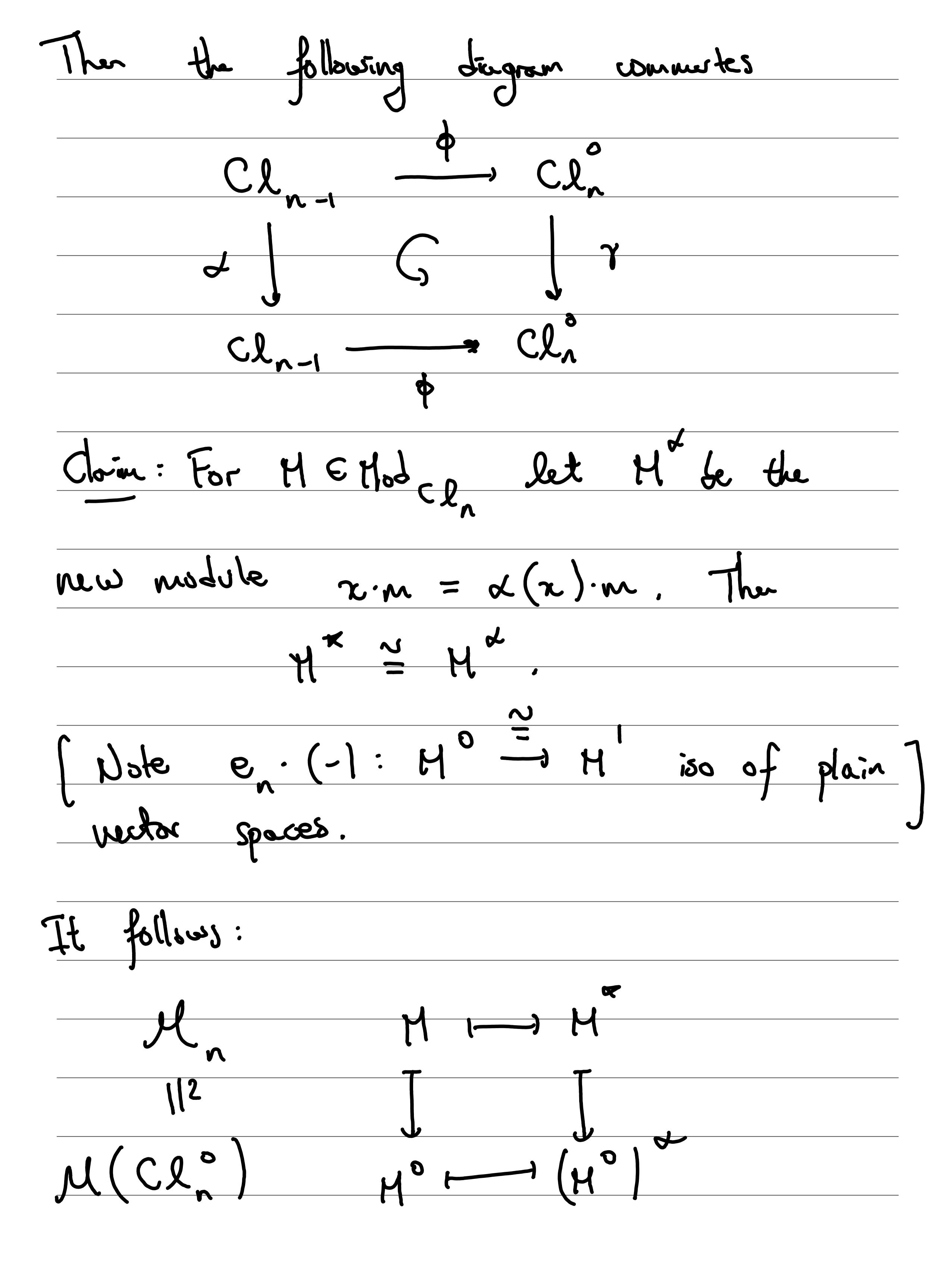
Clarendick group of?

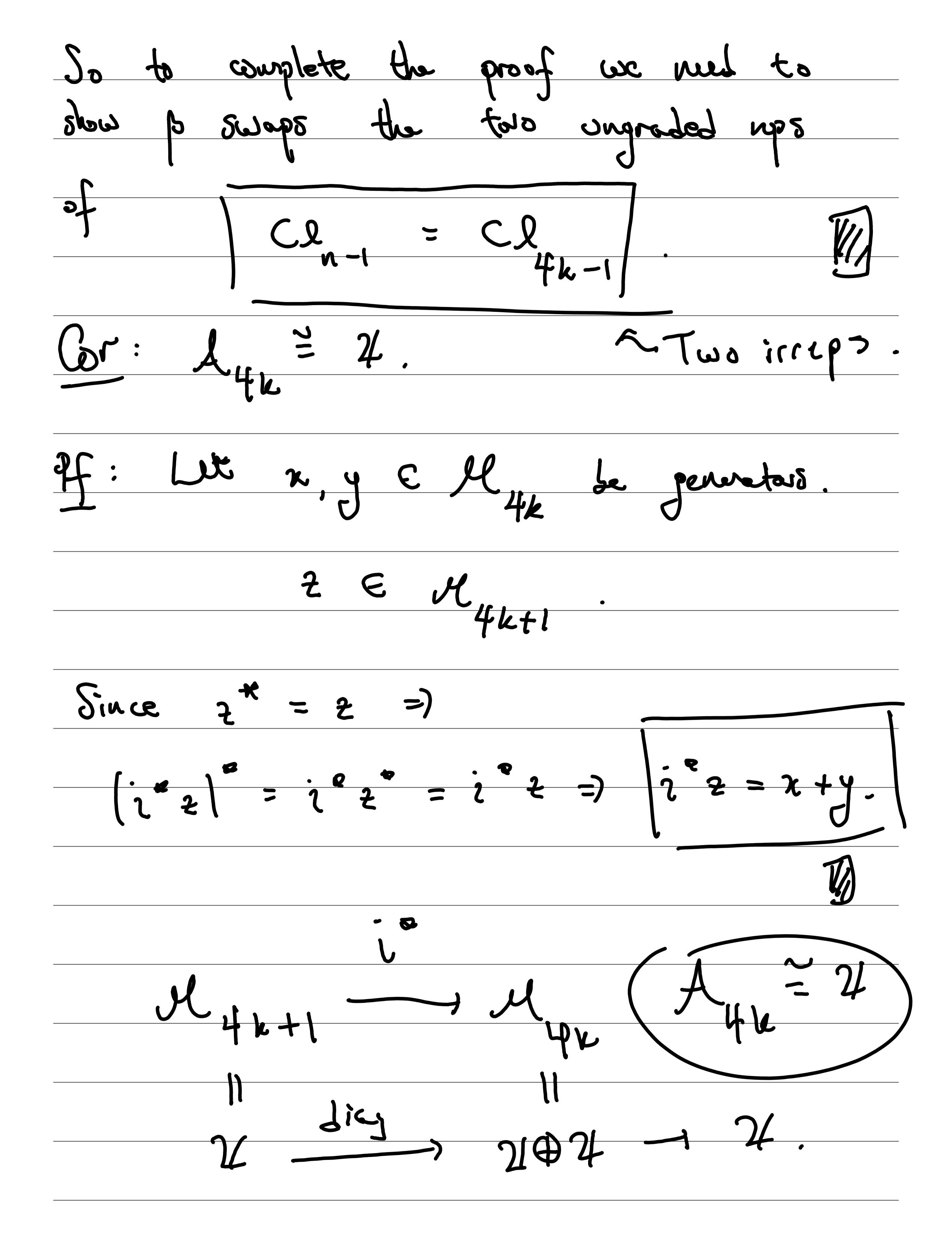
Clarendick group of? oportinate inclusion R ~ 1 R induces is = restriction. toker (Mm) - Jula



$$M_2 = 24 \cdot \chi$$
, $M_1 = 24 \cdot y$

Similar computation of An when n + 4k.
Now, we compute Atte. Rocall that
$\mathcal{H}_{4k} = 4 \oplus 4.$
If M= M° DM' defin M° to de
the gr. madule (M°) 0,1 = M1,0.
Pop: If M, N on the two inequivalent gr
irreps of Clyk. Then:
$M^{\prime\prime} = N \qquad M^{\prime\prime} = M .$
Pf. Lix p: Cl, -> Cl, e, -> e; e,.
$\gamma: Cl_n \longrightarrow Cl_n, \kappa \mapsto e_n \kappa e_n$
$\mathcal{L}: \mathcal{Cl}_{n-1} \longrightarrow \mathcal{Cl}_{n-1}, \times \mapsto (-1)^{2n}$





'King Structure: It there is an isomorphom 1 & e;, k < i < x + l. is gr. Col mod, N is gr. Colemod FLAMBN E Cl rod. Prop: This defines on association multipliantion

· Sps ue Mk, ve Me. Ther u=[M], v=[N], for some gr. modiks M, N. Hove (uv) = [dk, (M&N)] PRY (HON, AHON, AHON,) - 4 × 2 (H & H') & (N & N°]) $\frac{1}{2} \left(\frac{1}{2} \right) \times \frac{1}{2} = \frac{1}{2} \left(\frac{1}{2} \right) \times \frac{1}{2} = \frac{1}$

Similary (un) = un)

Sps DEM8=21 is a generation. $\frac{1}{1} \frac{1}{1} \frac{1}$ Pf: k # 4l. Thu let x e H, be the class of unique inep. dim (3-2)° = dim 2° dim 2 + dim 2' dim 2. = 2 dim 2° dim x. We have dim 2° = 8 and hence $\dim(\lambda, x)^{\circ} = 16 \dim x^{\circ} = \dim(\lambda, x)^{\circ}$ How, suppose that k=41. There are two gernotors of 42 call x, y. We know y = x. As above we see that λ -x is one generaler of 142+8. But $\lambda \cdot y = \lambda \cdot z = (\lambda \cdot z)^2$. So this is the other one.

Lik	Cln- cln. The
	uv) = ui°v,
	we see that in i e m. is
9v . 1960	1. Thus we also get a ring str.
	$\frac{\lambda}{\lambda} \times \lambda_{\lambda} \longrightarrow \lambda_{k+\ell}.$
A A A A A A A A A A A A A A A A A A A	1 deg 1 4 8
	$\mathcal{A} = 24 \left(2, \mu, \lambda \right)$
	$(a3, 3, 2\mu, \mu^2 - 4\lambda)$
	6) you will show:
	At = 2 (2) Ascribe this geometrical
4	11 deg 2.
n 7, 0	