

[11-05-16-T23]

Assignment

Complete the following table to give a cyclic group Z_6 of 6 elements. (Do not prove that the group is associative.)

(a)

	+	0	1	2	3	4	5
	0	0	1	2	3	4	5
	1	1	2	3	4	5	0
Z_6 :	2	2					
	3	3					
	4	4					
	5	5					

(b) Compute the subgroups $\langle 1 \rangle$, $\langle 2 \rangle$, $\langle 3 \rangle$, $\langle 4 \rangle$, $\langle 5 \rangle$ of the group Z_6 given in part (a).

(c) Which elements are generators for the group Z_6 of part (a)?