

# [11-05-24-T21]

## *Assignment*

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[1] For additive groups  $Z_n$  whose operation is addition mod  $n$ , try to find a way to predict which elements of  $Z_n$  will be generators of  $Z_n$ .

[2] If you succeed at [1], try to do the same for multiplicative groups  $U_n$  whose operation is multiplication mod  $n$ . (Recall that the elements of  $U_n$  are those numbers that have no factors in common with  $n$ . Another way to state that a number,  $m$ , has no factors in common with  $n$  is to say that the greatest common divisor of  $m$  and  $n$  is 1.)