

## Exercises in Statistical Mechanics

Based on course by Doron Cohen, has to be proofed  
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This exercises pool is intended for a graduate course in “statistical mechanics”. Some of the problems are original, while other were assembled from various undocumented sources. In particular some problems originate from exams that were written by B. Horovitz (BGU), S. Fishman (Technion), and D. Cohen (BGU).

### ===== [Exercise 6071]

#### Generalize incident current formula for 1D and 2D boxes

Generalize the equation for  $J$  incident for the cases of two dimensional gas and one dimensional gas. in each case, note what is the 'volume', what are the units of  $J$  and especially, what is the geometric factor in the equation.