Exercise 1:
Find the radial dependence of the magnetic field $B_z(r)$ in an isocyclotron with angular frequency $\omega_z$.

Exercise 2:
Consider a microtron with one accelerating cavity ($l = 1$ m, $g = 30$ MV/m) and $\omega_{RF} = 2\pi \cdot 1.3 \times 10^9$ Hz. What is the proper value of the magnetic field $B$?

Exercise 3:
In a Wideroe linear accelerator, what is the limit of the drift tube’s length as the speed of particles $v \to c$?