

## Test 1 - Electromagnetism (7P)

The following tasks consider a coreless coil with  $N = 100$  turns, the radius  $r = 0.02\text{m}$  (or  $r = 2 * 10^{-2}\text{m}$ ) and the length  $l = 0.18\text{m}$ .

**Calculate the Inductivity of the coil. (3P)**

**Calculate the magnetic resistance  $R_m$  of the coil. (4P)**