Homework Assignment #34
(due Dec. 5, 2022, at the beginning of class)

1. Griffiths 7.28

   Hints:

   - For (a) use the result of problem 7.24, which is $\frac{L}{l} = \mu_0 n^2 \pi R^2$
   - For (d) use the sketch provided in class Fr, Dec. 3.

2. Griffiths 7.34

   Hint: Note that the charge density σ is time dependent.

3. Griffiths 7.37

   Hint: Use problem 1.46b (page 50), which defines with Eq.(1.95) the step function $\theta(x)$ and also tells us that $\frac{d\theta}{dx} = \delta(x)$. You will also need Eq.(1.99) on page 50.