

Special Problem 9-2.3

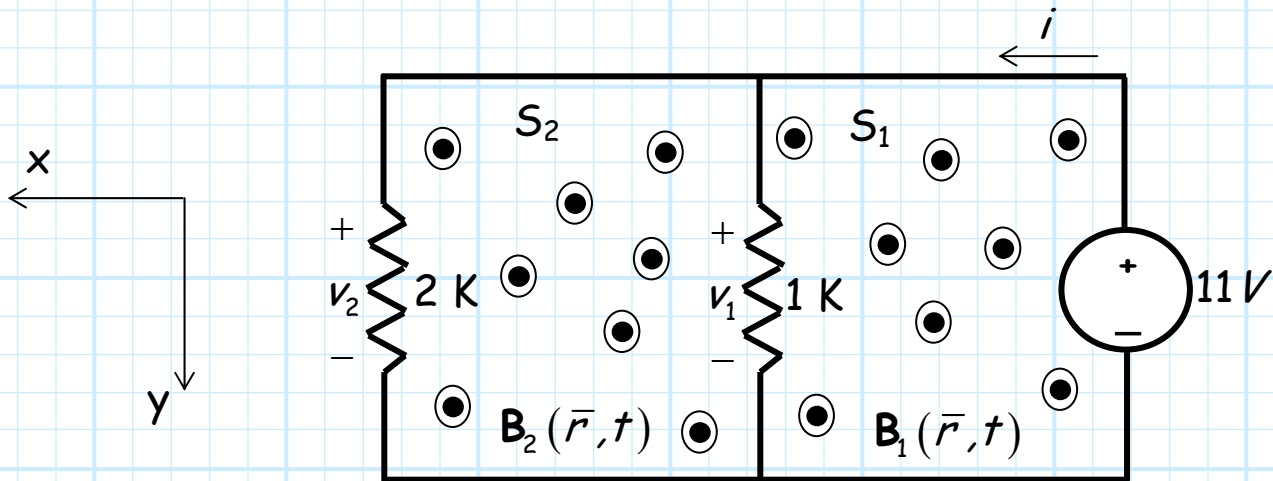
The circuit below forms **two** surfaces. The surface on the **right** is a square denoted as S_1 . The surface on the **left** is a square denoted as S_2 . The surface area of each surface is 2 m^2 .

The **magnetic flux density** on surface S_1 is:

$$\mathbf{B}_1(\bar{r}, t) = 5t \hat{a}_z \quad \left[\frac{\text{W}}{\text{m}^2} \right]$$

while the magnetic flux density on surface S_2 is

$$\mathbf{B}_2(\bar{r}, t) = (1 - 1.5t) \hat{a}_z \quad \left[\frac{\text{W}}{\text{m}^2} \right]$$



- 1) Determine the **voltages** v_1 and v_2 and **current** i .
- 2) Determine the voltage V_m that a **voltage meter** would read in the following situation:

