P #18

Ch 20 - pg 645

$R = 6.0\,\Omega$
$l = 1.2\,m$
$B = 2.5\,T$
$I = .50\,A$

Find $\mathcal{E}$:

$V = I \cdot R = (.50\,A)(6.0\,\Omega)$

$\mathcal{E} = V = 3.0\,V$

Find v:

$\mathcal{E} = B \cdot l \cdot v$ so $3.0\,V = (2.5\,T)(1.2\,m) \cdot v$

$v = 1.0\,m/s$