65. When all the batteries are connected in parallel, each supplies a current i; thus, $i_R = Ni$. Then from $\mathcal{E} = ir + i_R R = ir + Nir$, we get $i_R = N\mathcal{E}/[(N+1)r]$. When all the batteries are connected in series, $i_r = i_R$ and $\mathcal{E}_{\text{total}} = N\mathcal{E} = Ni_r r + i_R R = Ni_R r + i_R r$, so $i_R = N\mathcal{E}/[(N+1)r]$.