To prove the last part of the Exercise, let $J=\sum_{a \in G^{\prime}}(a-1) k G$. Since $G^{\prime}$ is normal in $G$, we have for any $g$ in $G$ and $a$ in $G^{\prime}: g(a-1) k G=\left(g a g^{-1}-1\right) g \cdot k G \subseteq J$, so $J$ is an ideal in $k G$. The same method can be used to show that $R / J \sim k G$. From this, we conclude easily that $I=J$.

