In the statement of Corollary 5.5, for the additive subgroup K to be a twosided ideal of T, one must posit the additional necessary and sufficient condition: $W \supseteq I_1V + VI_2$. (For a proof, see Proposition 1.17(3) in Lam's "First Course in Noncommutative Rings".) Adding this condition to the statement of Corollary 5.5 fixes this issue, and the proof is unchanged.