

Problem of the Week – 3

Undecidability

For a given language L , define $L^{\mathcal{R}}$ as the language $\{w^{\mathcal{R}} : w \in L\}$. (Recall that $w^{\mathcal{R}}$ is the reverse of w .) Prove that it is undecidable to determine whether $L = L^{\mathcal{R}}$.