For a language $A$, define $\text{Flip}(A)$ as the set $\{ww^R : w \in A\}$. That is, take every string $w$ in $A$ and append its reverse to it.

Show that if $A$ is recursive then so is $\text{Flip}(A)$.

Here is procedure to check if input string $x$ is in $\text{Flip}(A)$:
first, if second half of $x$ is not the reverse of first half, then reject.
otherwise let $w$ be the first half of $x$.
submit $w$ to the machine for $A$ and output its answer.