LC4 Assembly Practice Problem

Consider that only LC4 instructions that had an immediate input was CONST. All other instructions had only registers. For instance, the LDR instruction would just

\[
\text{LDR } R1, R2 \quad ; \text{regs[R}1\text{]} = \text{memory[regs[R}2\text{]]}
\]

Implement R7, R5, #-2 using only CONST and the new LDR instruction and other LC4 instructions that don’t have immediate.

**Answer:**

\[
\begin{align*}
\text{CONST } & R2, \ #-2 \\
\text{ADD } & R2, R5, R2 \\
\text{LDR } & R7, R2
\end{align*}
\]