

input : $n \times n$ matrix $[A]$, vector $\{x\}$

output: $\{b\} = [A]\{x\}$

for $r \leftarrow 1$ **to** n **do**

$b[r] \leftarrow 0$

for $c \leftarrow 1$ **to** n **do**

$b[r] \leftarrow b[r] + A[r, c] \cdot x[c]$

end

end