**Problem 7.17.** Let UNARY-SSUM be the subset sum problem in which all numbers are represented in unary. Why does the NP-completeness proof for SUBSET-SUM fail to show UNARY-SSUM is NP-complete? Show that UNARY- $SSUM \in P$ .

Part a. Why does the NP-completeness proof for SUBSET-SUM fail to show UNARY-SSUM is NP-complete?

**Part b.** Show that UNARY- $SSUM \in P$ .

Proof.  $\Box$