All problems in this homework refer to the textbook (Sipser 3rd edition).

This is a group homework. Please use the homework template to indicate group members and late days remaining.

1. (5 points) Problem 2.30 (d)
2. (10 points) Problem 2.47 (a), (b)
3. (10 points) Design a Turing Machine $M$ that decides the language

$$L(M) = \{ 0^n + 0^m = 0^{m+n} | m, n \geq 0 \}$$