

**Homework 2: Due on Sunday October 13 at 23:59**

Consider a monopolist who faces  $N$  identical high-income customers, each with inverse demand  $P_H = A - BQ$  and  $n$  identical low-income customers, each with inverse demand  $P_L = a - bQ$  with  $A > a > 0$ . The monopolist has the following cost function:  $C = cQ + F$  with  $0 < c < a$ .

- a) Find an optimal package  $(Q,V)$  if you are allowed to offer only one package to the customers, where  $Q$  is the quantity of the package and  $V$  is the price of the package.
- b) Find an optimal menu strategy, where you offer two packages to the customers.

Please submit by LumiNUS and include your name and student ID on the cover page.