

EC2101: Microeconomic Analysis I

Exercise 1.1

Preference Relation

1. Peter: $A \sim C \succ B$
2. Susan: $C \succcurlyeq A \sim B$
3. Edmund: $B \succ C \succ A$
4. Lucy: $C \succcurlyeq B \succcurlyeq A$

Exercise 1.2

Preference Relation and Transitivity

1. $A \succ D$ **TRUE**

2. $B \sim C$ **FALSE**

3. $B \succ C$ **FALSE**

4. $B \succ D$ **FALSE**

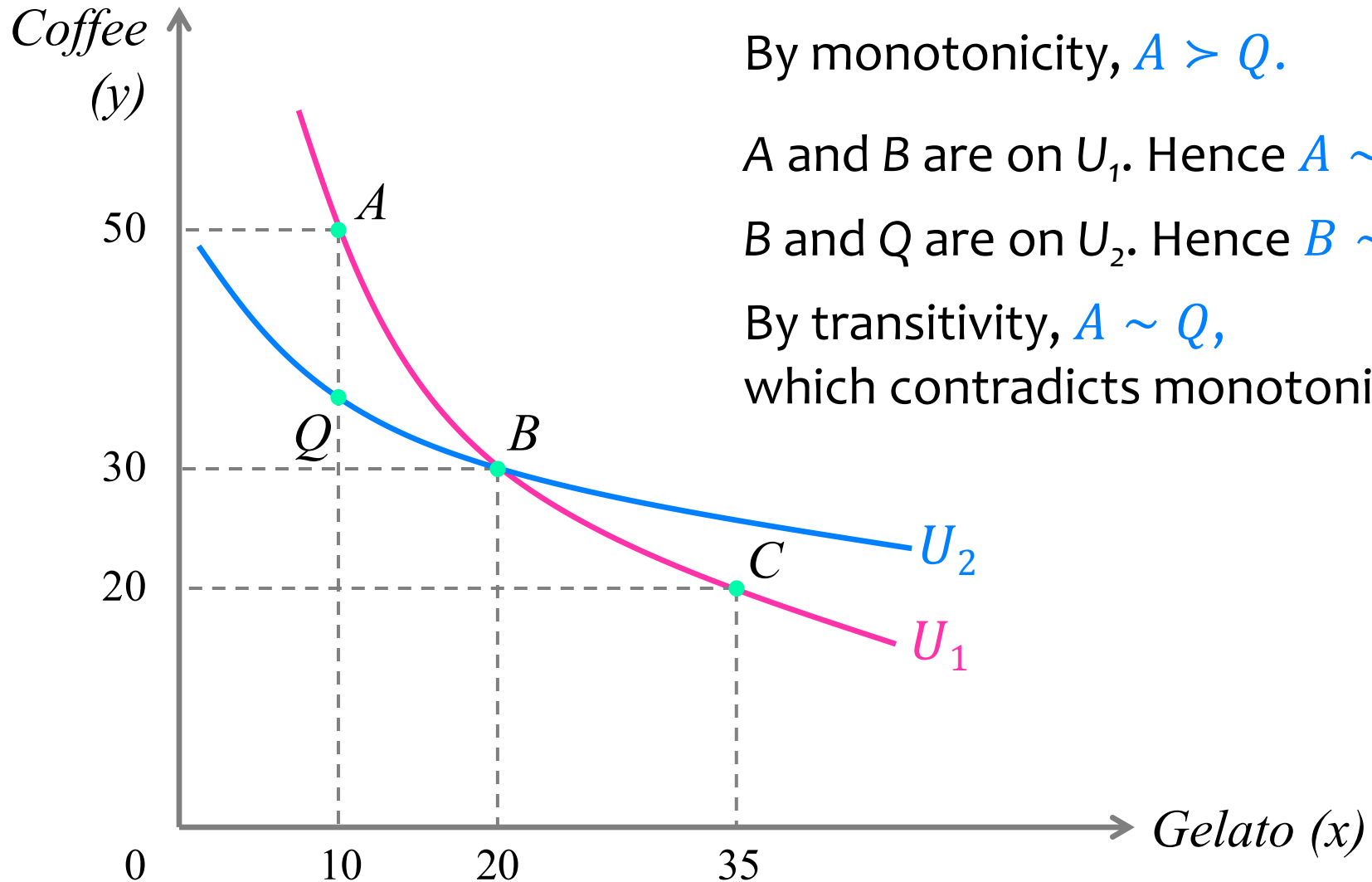
Exercise 1.3

Preference vs. Choice

- **Preference** is not the same as **choice**.
- **Preference** does not depend on prices or income.
 - If you derive greater satisfaction from business class than from economy class, you prefer business class to economy class.
- **Choice** depends on preference, prices, and income.
 - Even though you prefer business class to economy class, you may still end up choosing economy class.

Exercise 1.4

Can Indifference Curves Intersect?



By monotonicity, $A \succ Q$.

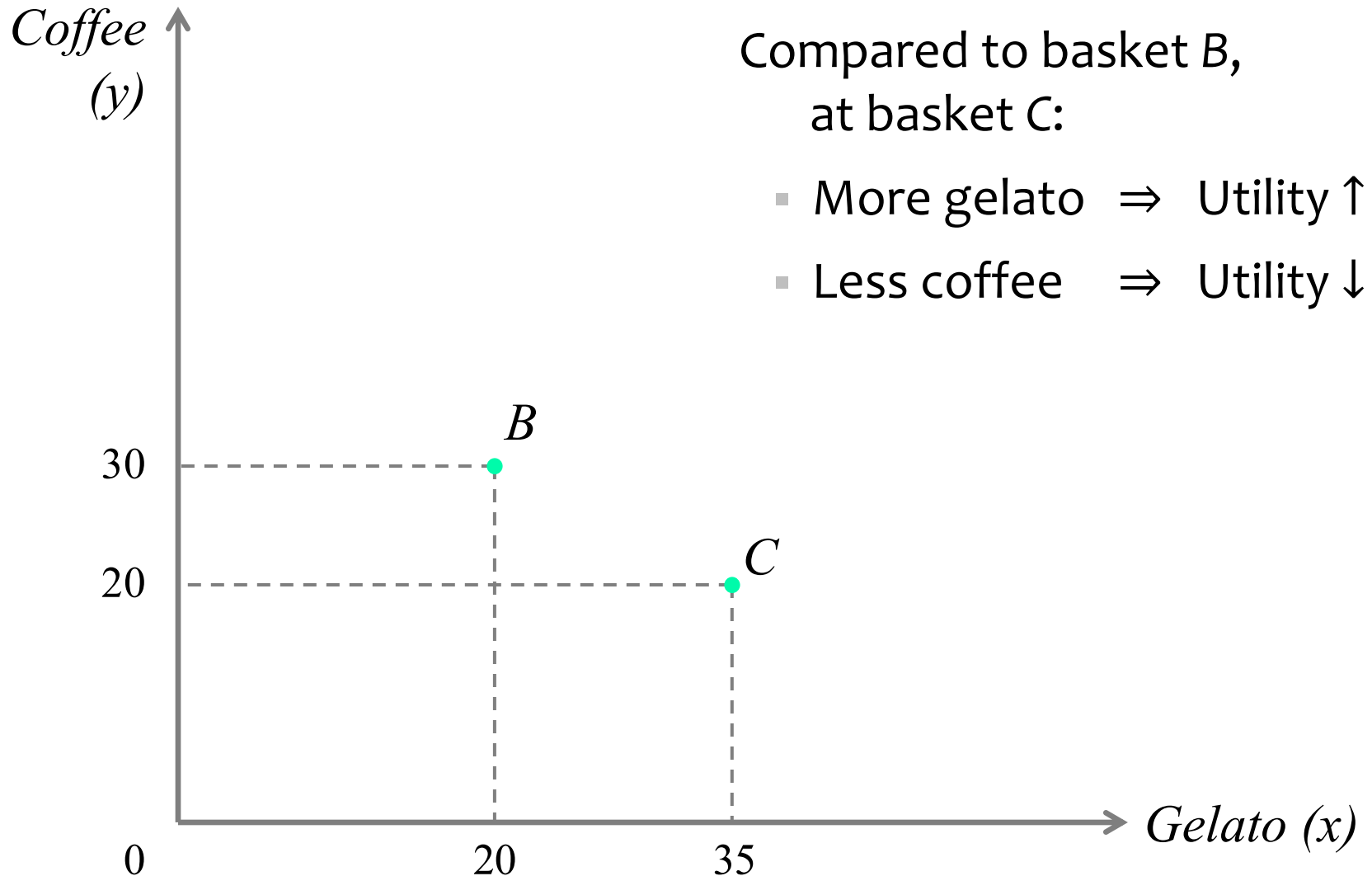
A and B are on U_1 . Hence $A \sim B$.

B and Q are on U_2 . Hence $B \sim Q$.

By transitivity, $A \sim Q$,
which contradicts monotonicity.

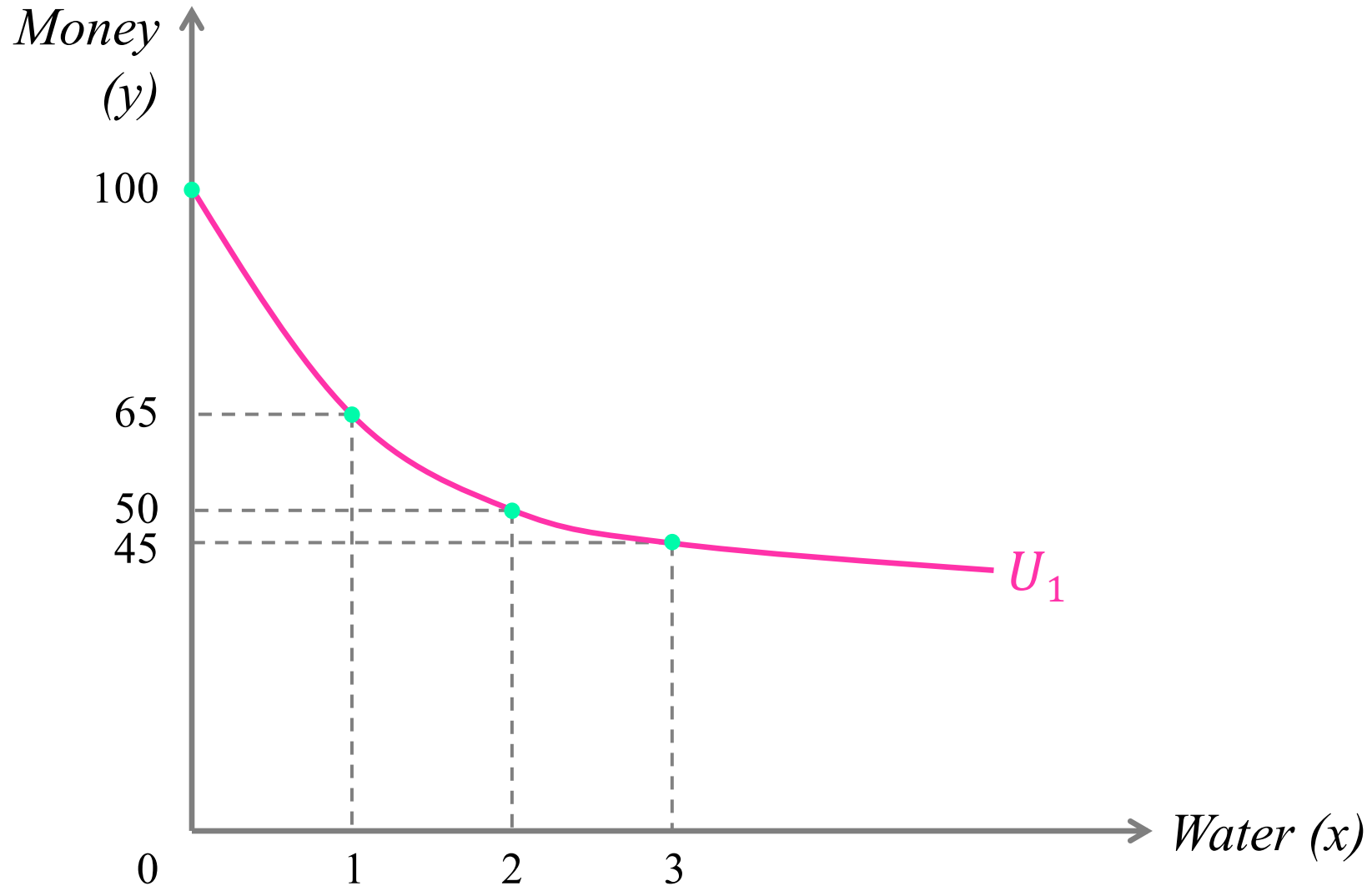
Exercise 1.5

Preferences and Monotonicity



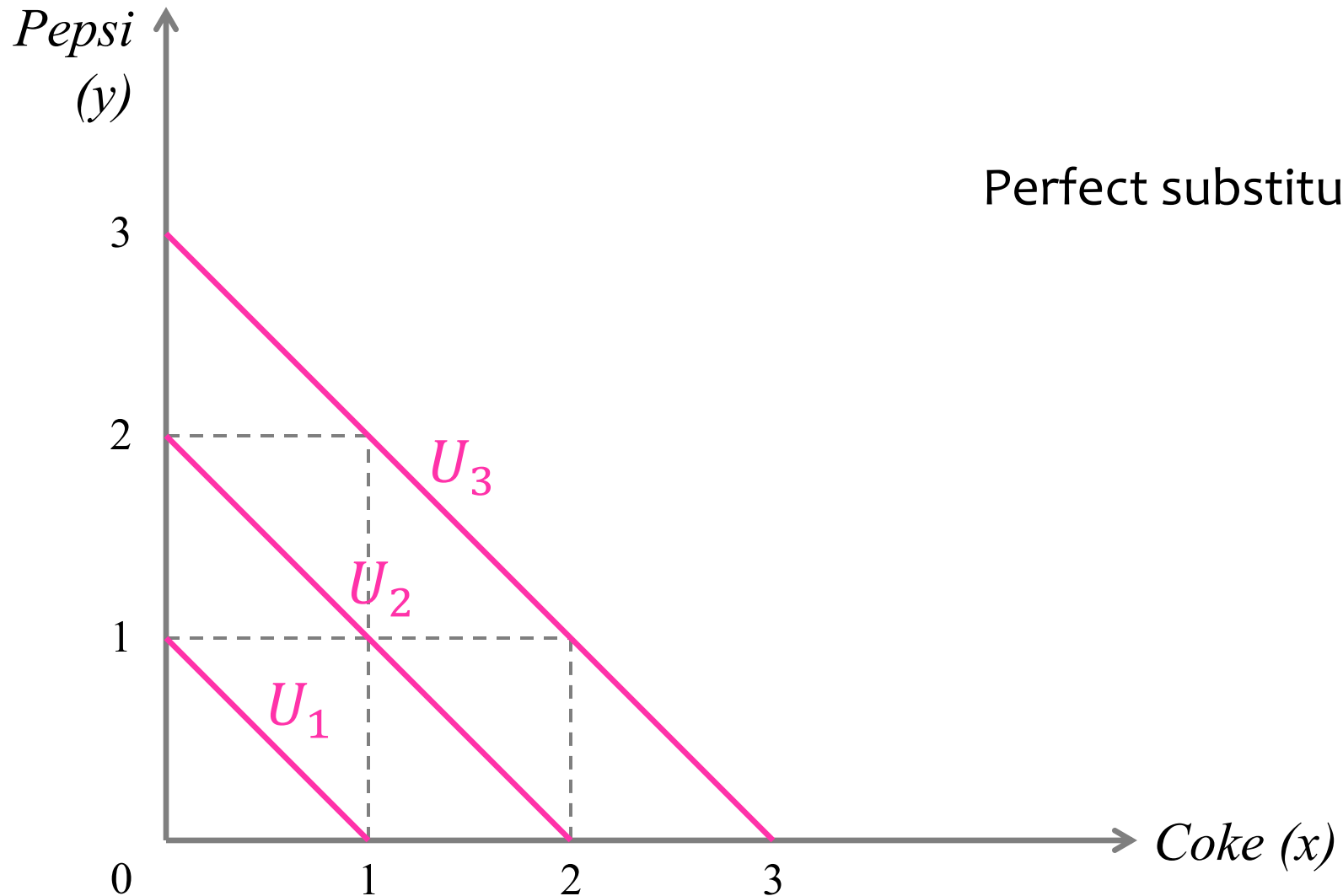
Exercise 1.6

Marginal Rate of Substitution (MRS)



Exercise 1.7(a)

Li Na is equally happy with Coke or Pepsi.



Exercise 1.7(b)

Li Na says: “For every left shoe, I need exactly one right shoe.”

