

time : 50 minutes

Do all 4 questions. All count equally.

1. Suppose that a person has a most preferred “ideal” combination of hours T watching television and hours S spent playing soccer (T^*, S^*) . Her preferences over other combinations (T, S) of hours spent watching television and playing soccer are determined entirely by how close a combination is to her ideal combination. That is, she prefers the combination (T_1, S_1) to the combination (T_2, S_2) if and only if (T_1, S_1) is closer to (T^*, S^*) than (T_2, S_2) is, when combinations are graphed in a diagram (with T on the horizontal axis, and S on the vertical).

Are these preferences monotonic? Convex?

Explain briefly.

2. What is a person’s demand function for food, if her preferences can be represented by the utility function

$$u(F, C) = C - \frac{1}{F}$$

where C is her clothing consumption, and F her food consumption?

3. Give an example (in numbers, or in a graph) of behavior which violates the *Weak Axiom of Revealed Preference*.

4. Use the Slutsky equation to explain why a person’s supply of labour might decrease with the net hourly wage which she can earn.