Quiz Questions

1) Consider 5 people with the preference rankings over A,B,C, and D as follows

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1 | 2 | 3 | 4 | 5 |
| B | A | C | A | D |
| C | D | B | C | B |
| D | C | D | B | C |
| A | B | A | D | A |

a) Draw the preferences of all people.

b) Who has single-peaked preferences, and who has not?

c) Which project will be selected according to the Condorcet voting?

2) Consider a society with 5 individuals. Their income levels are:

$$Y=\{100,110,150,160,1000\}$$

Suppose each individual $i$ has a utility function:

$$U^{i}=\left(Y^{i}-T\right)G$$

where $Y^{i}$ is the level of income, $T$ is the level of tax, and $G$ is the public good. Since there are $N$ number of people

$$N×T=G.$$

If $T$ is selected according to Condorcet voting, what is the outcome of this election?