

# Discrete Mathematics I

## Laboratory 2

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### Background

Here are 5 houses and they have a different color. A person of a different nationality is in each house. The 5 owners each drink a certain drink, each smoke a certain brand of cigarette, and each have a certain pet. No owner has the same pet, smokes the same brand of cigarettes nor drinks the same drink as any other.

### Rules:

1. The Dane lives in the red house.
2. The Swede keeps dogs as pets.
3. The British person drinks tea.
4. The green house is on the left of the white house.
5. The green homeowner drinks coffee.
6. The man who smokes Pall Mall keeps birds.
7. The owner of the yellow house smokes Dunhill.
8. The man living in the center house drinks milk.
9. The Norwegian lives in the first house.
10. The man who smokes Blend lives next to the one who keeps cats.
11. The man who keeps the horse lives next to the man who smokes Dunhill.
12. The man who smokes Bluemaster drinks beer.
13. The German smokes Prince.
14. The Norwegian lives next to the blue house.
15. The man who smokes Blend has a neighbor who drinks water.

### Summary:

Location: 1, 2, 3, 4, 5  
Color: Yellow, Blue, Red, White, Green  
Nationality: Norwegian, Swedish, English, Danish, German  
Pet: Fish, Horse, Bird, Dog, Cat  
Drink: Water, Tea, Milk, Beer, Coffee  
Cigarette: Pall\_mall, Blend, Prince, Dunhill, Bluemaster

### Question:

Find out the correct characteristics for each person.

#### Output:

Nation:	British	Swedish	Danish	Norwegian	German
Number:	Three	Five	Two	One	Four
Colour:	Red	White	Blue	Yellow	Green
Drink :	Milk	Beer	Tea	Water	Coffee
Smoke :	PallMall	BlueMaster	Blend	Dunhill	Prince
Pet :	Bird	Dog	Horse	Cat	Fish

*(Be reminded that this answer is not correct)*