# Chapter 3 Constraint Programming

Paragraph 1 Puzzles, Domains, and Constraints

## Who Owns the Fish?

- 1. The Brit lives in the red house.
- 2. The Swede keeps dogs as pets.
- 3. The Dane drinks tea.
- 4. The green house is on the left of the white house.
- 5. The green house's owner drinks coffee.
- 6. The person who smokes Pall Mall rears 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 Blends lives next to the one who keeps cats.
- 11. The man who keeps the horse lives next to the man who smokes Dunhill.

←Left

First House

- 12. The owner who smokes Bluemasters drinks beer.
- 13. The German smokes Prince.
- 14. The Norwegian lives next to the blue house.
- 15. The man who smolles Blends has a neighbor who drinks water.

Right

ПΙ











































































































## Who Owns the Fish?

- 1. The Brit lives in the red house.
- 2. The Swede keeps dogs as pets.
- 3. The Dane drinks tea.
- 4. The green house is on the left of the white house.
- 5. The green house's owner drinks coffee.
- 6. The person who smokes Pall Mall rears 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 Blends 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 owner who smokes Bluemasters drinks beer.
- 13. The German smokes Prince.
- 14. The Norwegian lives next to the blue house.
- 15. The man who smolles Blends has a neighbor who drinks water.





# **Constraint Programming**

Model a combinatorial problem through

 Variables X with Domains D(X)
 Constraints



 $X_1$ 

 $X_2$ 

# Thank you!

