Jobs

Three men have two jobs each. The chauffeur offended the musician by laughing at his long bait. The musician and the gardener used to fish with John. The painter bought a quart of gin from the consultant. The chauffeur courted the painter's sister. Jack owed the gardener $5. Joe beat Jack and the painter at quoits. One of them is a hairdresser and no two have the same job. Who does what?

(From Problem 44.3 1977. *Open Univ. Student journal.*)

Entry
  o State explicitly any assumptions you make.
  o Introduce a table or other recording device.

Attack
  o Record your various deductions so that you can CHECK them later.

Extend
  o Find a way of making up such puzzles.
  o There should always be a unique solution.

Cycling

I have in mind a number which when you remove the units digit and place it at the front, gives the same result as multiplying the original number by 2. Am I telling the truth?

Entry
- o Be clear on what you KNOW.

Attack
- o Start somewhere! Make an Assumption!
- o Keep going!
- o Write down what you are doing to generate new digits.
- o A single number is not an adequate resolution.

Extend
- o What is the smallest number with this property?
- o Replace 2 by other numbers. Must they have only one digit? Compare patterns.
- o Move the leading digit to the units place instead.