Practice for Class Test Number 1

Write pseudocode and a java program for the following problems:

Write a program which asks the user to enter the value of their car, their age, the number of miles they drive in a year, and the number of penalty points they have on their licence. The program should then work out and display their insurance premium, taking the following into account:

- A standard premium is calculated at 7% of the value of the car.
- Drivers who travel more than 15,000 miles per year pay an extra €70 on their premium.
- Drivers pay an extra €120 on their premium if they are under 25, or if their car is valued at more than €18,000.
- More experienced drivers can receive a reduction in their premium depending on the number of penalty points they have. Drivers who are over 30 years old with no penalty points get a 40% reduction on their premium. Drivers who are over 30 years old with up to 5 penalty points get a 10% reduction on their premium.
- Any driver with more than 8 penalty points will not be insured.

Extra Practice – Try this at home over the weekend.

A sales company gives its sales staff a bonus of 4% of their current salary at Christmas every year. If the employee reaches the sales target of €6000 an additional bonus of €200 is added to the basic bonus. The employees are also rewarded on attendance. If the employee's absent days in the year are between 6 and 2 the bonus is increased by 10%. If the employee has missed 2 days or less in the year the bonus is increased by 20%. No bonus is given to an employee who is absent for more than 20 days in the year. Write a program that will calculate the bonus earned by an employee.