1. UML Diagram 1

Answer the questions below about the UML diagram here (Assume that all instance variables have public access +):

![UML Diagram](image.png)

a. Instances of which classes have a field (instance variable) named address?
   Person, Employee, HourlyEmployee, SalariedEmployee, Building,

b. Do HourlyEmployee instance have Offices?
   No,

c. By what name do instances of the class Office know their Building instances?
   Building.

d. List all the fields (instance variables) of a SalariedEmployee.
   weeklyPay, employeeID, name, address, office

e. List all the classes whose instances can understand the method fire().
   The method fire() can only be used on Employee, HourlyEmployee, SalariedEmployee instances

f. List all of the instance variables in Person.
   name, address

g. List all of the instance variables in HourlyEmployee
hourlyRate, employeeID, name, address

h. List all of the instance variables in Office instances
   number, occupant

i. Instances of what classes can use the method hire()?
   The method hire() can only be used on Employee, HourlyEmployee, SalariedEmployee instances

j. How many Offices of a Building can exist?
   0 to infinity (0...*)

k. How many Buildings are associated with a given Office?
   1
2. UML Diagram 2

Answer the questions below about the UML diagram here (Assume that all instance variable have public access +):

- **Animal**
  - `name: String`
  - `birthday: Date`
  + `sleep(hours:int)`
  + `eat()`

- **Person**
  - `phoneNumber: String`
  - `job: String`
  + `goToWork()`

- **Dog**
  - `hairColor: Color`
  + `owner: DogOwner`
  + `chewToy()`
  + `bark()`

- **DogOwner**
  - `dogs: LinkedList<Dog>`
  + `takeDogToVet(d:Dog)`
  + `feedDog(d:Dog)`
  + `exerciseDog(d:Dog)`

- **Relationship**
  - 0..1 lives with

a. Which classes understand the method `eat()`?
   - Animal, Person, DogOwner, Dog

b. Which classes have a `phoneNumber`?
   - Person, DogOwner

c. Which classes understand the method `chewToy()`?
   - Dog

d. How many Dogs can each DogOwner have (min and max)?
   - 0 to infinity (0..*)

e. Which classes have a `name` field?
   - Animal, Person, DogOwner, Dog