**What will be printed?**

Meow. I am a cat. My name is Kurre

and I am 6 years old.

Woof. I am a dog. My name is Vilma

and I am 3 years old.

**Explain how it is that the instance variable age of Animal can be used in Cat and Dog when it is declared in Animal.**

Cat and Dog are subclasses of Animal and it will obtain all of the parent classes public properties and methods through inheritance.

**What actually consists an instance of?**

Animal object kurre and vilma contains an instance of Cat and Dog respectively.

**And what consists a class of?**

A class contain a blueprint or a template for creating different objects which defines its properties and behaviors. A class can consist of fields and methods to describe the behavior of an object.

**What is the difference between a class and an instance?**

A class acts as a blueprint of an object or instance. A class defines the properties and methods of an object or instance while the instance is the object of a class created to be used in a program.

**Change the declaration of the instance variable age of Animal to a class variable using static, in this way:**

**what is the result of the output now? Why?**

Meow. I am a cat. My name is Kurre

and I am 3 years old.

Woof. I am a dog. My name is Vilma

and I am 3 years old.

The output is different because static fields are special properties that can be accessed without instantiating a class. However, only a single instance of it exists and shared between all objects of the same class.

**Where is the value of an instance variable stored?**

It will be stored in the class itself where the variable was defined

**Where is the value of a class variable stored?**

It will be stored inside a property of the class objects. In this case, the class variable age will be stored in an Animal instance.

**What refers the variable this to?**

The keyword this refers to the class itself. If two variables or methods with the same name are used, this keyword will make sure the current class version of the two will be used instead.