# Tutorial 3

These questions refer to the lectures presented in week 3 of Object Oriented Programming with Java. They will be covered during the tutorial during week 4.

## Inheritance

1. What kind of relationship does inheritance represent?

2. Give an example of a type hierarchy of automobiles.

3. What does a subclass inherit from its superclass?

4. What keyword indicates a new class is a subclass of an existing class?

5. What does it mean to override a method?

6. How do you specify a superclass's constructor in a subclass?

7. How do you override a superclass's method in a subclass?

8. What does the annotation @Overrride do?

9. What does the keyword "static" mean?

10. Why is the main() method declared as static?

11. What does the keyword "final" mean?

12. What is the difference between a system test and a unit test?

13. How do you specify that a new class will be in a particular package in Eclipse?

14. How do you specify that a new class will be a subclass of a particular superclass in Eclipse?

15. How do you create a new JUnit test in Eclipse?

16. Where do you need to import into a test case to use assertEquals?

17. How do you create a new JUnit test suite in Eclipse?

18. What does a JUnit test suite do?

19. Shat happens when you set the package name  when defining a Test Suite?

20. How do you specify the tests you want to run in a test suite?

21. How do you see all of the test that have run when you run a test suite?

22. How do yo run the system test in Java?

23. Where does the output of the system test appear?

24. What does the @Before annotation do?

25. What do you need to import to use the @Before annotation?

## UML

26. What does UML stand for?

27. What is UML?

28. How is UML used in industry now?

29. What is the value of UML?

30. What are the UML structural diagrams?

31. What are the UML behavioral diagrams?

32. What are the three commonly used diagrams?

33. What are the three parts of a class symbol?

34. How do you represent Public and Private members of a class in a UML diagram?

35. How is generalization represented in UML?

## Polymorphism

36. What is Polymorphism?

37. What are the three types of polymorphism?

38. Give an example of ad hoc polymorphism.

39. Given an example of sub-type polymorphism.

40. How do you declare an array of objects that can contain all of the classes defined as subclasses of Animal?