06 Quiz 1 - ARG

1. Select the four (4) statements that can be inserted at line n1. (3 pts. each)

employee.salary = 50000;

director.salary = 80000;

employee.budget = 20000;

manager.budget = 100000;

manager.stockOptions = 500;

director.stockOptions = 1000;

```java
public class Employee {
    public int salary;
}
public class Manager extends Employee {
    public int budget;
}
public class Director extends Manager {
    public int stockOptions;
}
    public static void main(String[ ] args) {
        Employee employee = new Employee();
        Manager manager = new Manager();
        Director director = new Director();
        //line n1
    }
}
```

4 statements that can be inserted at line n1

employee.salary = 50000;

director.salary = 80000;

manager.budget = 100000;

director.stockOptions = 1000;

Would not run

employee.budget = 20000;

- Employee does not have a budget attribute; budget is only in Manager and its subclasses.

manager.stockOptions = 500;

- Manager does not have stockOptions; it is only defined in Director.

2. Will the code compile? If yes, determine the output. If no, state why. (3 pts.)

```java
class Pet {
    public Pet(int age) {
        System.out.print("Pet");
    }
}
public class Cat extends Pet {
    public Cat() {
        System.out.print("Cat");
    }
    public static void main(String[ ] args) {
        new Pet(5);
    }
}
```

The code will <u>not compile</u> because the Cat class's constructor implicitly calls the Pet class's no-argument constructor (super constructor) at the beginning, but the Pet class does not have a no-argument constructor defined; it only has a constructor that takes an int age parameter