Group 42   Homework 2

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3.2 (a) and (c) are legal.

3.6 An overloaded method is when a class has more than one method of the same name but their parameters are different:

```
Public static void main(String []args){
        Public class CalculateSquare{
                Public void square()
                        { System.out.println("a square!");}
                Public int square (int number)
                        { int square = number * number}
                Public double square (double number)
                        { double square = number * number; }
        }
}
```

3.7 An overridden method in java is when a subclass or child class provides specific implementation of a method already provided by one of its superclasses.

```
Class Doggo{
        Public void sit()
                { System.out.println("the doggo is sitting"); }
        Class Lab extends Doggo{
        Public void sit()
                {System.out.println("the lab is sitting"); }
        }
```

3.8 Accidental overloading occurs when the class contains the same method name but with a different number of parameters and datatype. In order to prevent it from occurring, it is important to utilize the final, static, and private keywords as well as the @Override annotation.

3.10 True

3.15 It is NOT legal. It will throw a compile time error because the method is not present in the superclass.

6.2 An anonymous class is a local class without a name. An inner class is a class inside of a class. A local class is an inner class declared inside of a code block rather than as part of another class' definition.