



## Section 4 - Abstract and Nested Classes

### Quiz Answers

1.

Use abstract classes when you know that every subclass needs to provide some functionality that is too general to define in your base class. If a method is declared abstract, then subclasses need to provide an implementation for that method, otherwise the subclass can't be used to create an object.

2.

```
public class Cellphone
{
    private String mName, mModel;
    private Battery mBattery;

    public Cellphone(String name, String model, Battery battery)
    {
        mName = name;
        mModel = model;
        mBattery = battery;
    }
}
```

```
public static class Battery
{
    private int mDuration;

    public Battery(int duration)
    {
        mDuration = duration;
    }

    public int getDuration()
    {
        return mDuration;
    }
}

public String getName()
{
    return mName;
}

public void setName(String mName)
{
    this.mName = mName;
}

public String getModel()
{
    return mModel;
}

public void setModel(String mModel)
{
    this.mModel = mModel;
}

public Battery getBattery()
```

```
{  
    return mBattery;  
}  
  
public void setBattery(Battery mBattery)  
{  
    this.mBattery = mBattery;  
}  
}
```

To construct a cellphone object:

Cellphone cellphone = **new** Cellphone("HTC One M9", "Android", **new**  
Cellphone.Battery(12))