```
public class AngryBird {
                                                              public class RedBird extends AngryBird {
        public int getSpeed() {
                                                                      public Color getColor() {
                return 10;
                                                                              return Color.RED;
                                                             }
        public String getSound() {
                return "Squak!!";
        }
                                                              public class BigBrotherBird extends RedBird {
                                                                      public int getSpeed() {
        public Color getColor() {
                                                                              return 5;
                                                                      }
                return Color.BLACK;
        }
                                                             }
}
public class YellowBird extends AngryBird {
                                                              public class BombBird extends AngryBird {
                                                                      public String getSound() {
        public int getSpeed() {
                                                                              return "KABOOM!";
                return 20;
        }
                                                                      }
        public Color getColor() {
                                                                      public void explode() {
                return Color.YELLOW;
                                                                              Syso(getSound());
                                                                      }
                                                             }
        public void speedAttack() {
                Syso("I have the need...");
                Syso("The need for speed!");
        }
}
```

- 1) On the back, draw the inheritance diagram (boxes with arrows) for the classes above.
- 2) For each class indicate the total number of methods the class has, as well as the number of overridden methods.

	AngryBird	RedBird	BigBrotherBird	YellowBird	BombBird
Total Methods					
Overridden Methods					

3) Cross out all the lines of code that are ILLEGAL. Write the output next to working lines of code.

```
BigBrotherBird b4 = new BigBrotherBird();
AngryBird bird = new AngryBird();
Syso(bird.getSound());
                                                      Syso(b4.getSound());
bird.speedAttack();
                                                      BombBird b5 = new BombBird();
RedBird bird2 = new RedBird();
                                                      b5.explode();
Syso(bird2.getSpeed());
                                                      BigBrotherBird b6 = new RedBird();
bird2.explode();
YellowBird bird3 = new YellowBird();
                                                      AngryBird b7 = new BombBird();
bird3.speedAttack();
                                                      b7.explode();
                                                      Syso(b7.getSound());
```