

```

class Frodo extends Bilbo{
    public String name = "Frodo";
    public void method1(){
        System.out.println(super.name+" 1");
        System.out.println("Frodo 1");
        super.method1();
    }
    public void method3(){
        System.out.println(this.name+" 3");
        System.out.println("Frodo 3");
    }
}

class Gandalf{
    public String name = "Gandalf";
    public void method1(){
        System.out.println("Gandalf 1");
    }
    public void method2(){
        System.out.println("Gandalf 2");
        method1();
        System.out.println(name+" 2");
    }
}

class Bilbo extends Gandalf{
    public void method1(){
        System.out.println("Bilbo 1");
        System.out.println(super.name+" 1");
    }
}

class Gollum extends Gandalf{
    public String name = "Gollum";
    public void method3(){
        System.out.println("Gollum 3");
        this.method2();
    }
}

```

And assuming the following variables have been defined:

```

Gandalf var1 = new Frodo();
Gandalf var2 = new Bilbo();
Gandalf var3 = new Gandalf();
Object var4 = new Bilbo();
Bilbo var5 = new Frodo();
Object var6 = new Gollum();

```

In the table below, indicate in the right-hand column the output produced by the statement in the left-hand column. If the statement produces more than one line of output, indicate the line breaks with slashes as in "a/b/c" to indicate three lines of output with "a" followed by "b" followed by "c". If the statement causes an error, fill in the right-hand column with either the phrase "compiler error" or "runtime error" to indicate when the error would be detected.

Statement	Output
System.out.println(var1.name);	
System.out.println(var2.name);	
System.out.println(var3.name);	

<code>System.out.println(var4.name) ;</code>	
<code>System.out.println(var5.name) ;</code>	
<code>System.out.println(var6.name) ;</code>	
<code>var1.method1() ;</code>	
<code>var2.method1() ;</code>	
<code>var4.method1() ;</code>	
<code>var6.method1() ;</code>	
<code>var1.method2() ;</code>	
<code>var3.method2() ;</code>	
<code>var4.method2() ;</code>	
<code>var5.method2() ;</code>	
<code>var6.method2() ;</code>	
<code>((Frodo) var4).method3() ;</code>	
<code>((Frodo) var6).method2() ;</code>	
<code>((Gollum) var1).method3() ;</code>	
<code>((Gollum) var4).method1() ;</code>	
<code>((Gandalf) var1).method2() ;</code>	
<code>((Frodo) var4).method1() ;</code>	
<code>((Gollum) var6).method2() ;</code>	
<code>((Gandalf) var2).method1() ;</code>	
<code>((Bilbo) var6).method2() ;</code>	
<code>((Frodo) var1).method3() ;</code>	
<code>((Gandalf) var5).method3() ;</code>	