

- V. **Inheritance and Polymorphism (10 points).** Consider the following classes. 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 the phrase "error" to indicate this.

	<u>Statement</u>	<u>Output</u>
<pre>public class Eye extends Mouth { public void method1() { S.o.pln("Eye 1"); super.method1(); } } public class Mouth { public void method1() {</pre>	var1.method1();	Nose 1
	var2.method1();	Eye 1/Mouth 1
	var3.method1();	Eye 1/Mouth 1

<pre> S.o.pln("Mouth 1"); } public void method2() { S.o.pln("Mouth 2"); method1(); } } public class Nose extends Eye { public void method1() { S.o.pln("Nose 1"); } public void method3() { S.o.pln("Nose 3"); } } public class Ear extends Eye { public void method2() { S.o.pln("Ear 2"); } public void method3() { S.o.pln("Ear 3"); } } The following variables are defined: Mouth var1 = new Nose(); Ear var2 = new Ear(); Mouth var3 = new Eye(); Object var4 = new Mouth(); Eye var5 = new Nose(); Mouth var6 = new Ear();</pre>	var1.method2();	Mouth 2/Nose 1
	var2.method2();	Ear 2
	var3.method2();	Mouth 2/Eye 1/Mouth 1
	var4.method2();	Compiler Error
	var5.method2();	Mouth 2/Nose 1
	var6.method2();	Ear 2
	var1.method3();	Compiler Error