

CSC-133 (Fall 2018)  
Attendance Quiz # 3

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**Inheritance and Polymorphism (20 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.

"S.o.pln" means "System.out.println".

<pre> public class Eye extends Mouth {     public void method1() {         S.o.pln("Eye 1");         super.method1();     } } public class Mouth {     public void method1() {         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");   } } </pre>	<p>The following variables are defined:</p> <pre> 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> <table border="1"> <thead> <tr> <th><u>Statement</u></th><th><u>Output</u></th></tr> </thead> <tbody> <tr> <td>var1.method1();</td><td><u>"Nose 1"</u></td></tr> <tr> <td>var2.method1();</td><td><u>"Eye 1" / "Mouth 1"</u></td></tr> <tr> <td>var3.method1();</td><td><u>"Eye 1" / "Mouth 1"</u></td></tr> <tr> <td>var1.method2();</td><td><u>"Mouth 2" / "Nose 1"</u></td></tr> <tr> <td>var2.method2();</td><td><u>"Ear 2"</u></td></tr> <tr> <td>var3.method2();</td><td><u>"Mouth 2" / "Nose 1" / Mouth 1"</u></td></tr> <tr> <td>var4.method2();</td><td><u>Error</u></td></tr> <tr> <td>var5.method2();</td><td><u>"Mouth 2" / "Nose 1"</u></td></tr> <tr> <td>var6.method2();</td><td><u>"Ear 2"</u></td></tr> <tr> <td>var1.method3();</td><td><u>Error</u></td></tr> </tbody> </table>	<u>Statement</u>	<u>Output</u>	var1.method1();	<u>"Nose 1"</u>	var2.method1();	<u>"Eye 1" / "Mouth 1"</u>	var3.method1();	<u>"Eye 1" / "Mouth 1"</u>	var1.method2();	<u>"Mouth 2" / "Nose 1"</u>	var2.method2();	<u>"Ear 2"</u>	var3.method2();	<u>"Mouth 2" / "Nose 1" / Mouth 1"</u>	var4.method2();	<u>Error</u>	var5.method2();	<u>"Mouth 2" / "Nose 1"</u>	var6.method2();	<u>"Ear 2"</u>	var1.method3();	<u>Error</u>
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