CIS 401/501 - Quiz 9 - Thursday, October 28, 2004

Name: ________________________________ J Number: ________________________________

1. (2 pts) Suppose that we have the following method in a class definition called MyClass, and suppose
MyClass contains an instance variable called num of type int, and an instance method called num() which
returns the value of num. Consider the following code. Is it possible that there could be a run-time error?
When is this possible and how can we fix the code to avoid it?

```java
public boolean equals(Object o) {
    MyClass myClass = (MyClass)o;

    return (num == myClass.num());
}
```

2. (2 pts) Suppose we have the following class header.

public class MyClass extends JApplet implements ActionListener, ItemListener

Name at least 5 “is a” relationships that exist based on this header.

3. (2 pts) The method __________________ called from within an applet gives a reference to the URL
where the applet’s .class file was found, and the method __________________ called from within an
applet gives a reference to the URL where the HTML file that loaded the applet was found.

4. (2 pts) Suppose that we have an applet and an instance variable of type Image called image. Fill in the
following paint method so that the image is drawn on the applet so that the bottom right corner of the image
is at the bottom right corner of the applet.

```java
public void paint(Graphics g) {
    g.clearRect(0, 0, getWidth(), getHeight());
    super.paint(g);
    if (image != null)
        g.drawImage(__________________________, __________________________, __________________________, __________________________);
}
```

5. (2 pts) The activity of a thread is defined in the method __________________ associated with the
thread, and if we want an applet to run in its own thread, why can’t we make it an extension of Thread?