1. (2 pts) When a button click is detected, an ________________ object is created and sent to the 
actionPerformed method associated with the listener. This object like other event objects is a subclass of 
____________________ which is found in the java.util package.

2. (2 pts) Suppose someone asked you to write a program to display four radio buttons on an applet’s 
container each belonging to the same ButtonGroup, and when the first and last buttons are selected at the 
same time, display a message on the screen. Can you show the method that you would write to solve the 
problem? Explain.

3. (2 pts) Suppose we have five checkboxes on the screen, labeled box1 through box5. We want to repaint the 
applet’s window if the first box is checked, but do nothing if the other boxes are checked or unchecked.
Explain why the following code does not satisfy all of these conditions.

```java
public void itemStateChanged(ItemEvent e) {
    if (e.getStateChange() == ItemEvent.SELECTED)
        repaint();
}
```

4. (2 pts) The method ________________ returns a reference to the object that caused an event to 
occur, and the method ________________ returns a String associated with objects like buttons. What 
does the second method return if we don’t set any text to be associated with that button?

5. (6 pts) Which of the following statements are true? If they are not true, explain why they are not.

   _____ When we create an applet we can make it a subclass of Thread so it can run independently of its 
context.

   _____ The second time an applet’s context calls its init() method it reinitializes the applet’s instance 
variables.

   _____ An applet has the “is a” relationship with the ActionListener interface if it implements it.

   _____ When an applet calls the method repaint(), its context always calls its paint method.

   _____ When we use the == operator between two object references, we are testing whether or not all of the 
instance variables in those objects are the same.

   _____ If an applet implements only the Runnable interface, then the applet “is a” Thread.