

**Program: Java Graphics Applet Animation**  
**Honors Computer Science C++**  
**Mr. Clausen**

**Program: Java Graphics Applet Animation (100 points)**

This program should be rated "G". Start by drawing your "background scenes" on the graphics grid sheet. **Remember to keep the area of the background that you wish to have your animated object move over to be one solid color.** Your background picture should have a lot of detail whether you have a nature scene, "cityscape", space exploration, or whatever you choose to draw. **This program requires 1 background scene at a minimum.** No "abstract art". You may use some algorithmic drawing to add realism, but only as a small percentage of your code. For example, you may use fractals to draw better looking tree branches or blades of grass. Formula or algorithm generated graphics should be no more than 20% of your backgrounds.

Once you have your background ready, it's time to add animation to your project. Remember that animation is drawing an object in one position, having a short delay, erasing it (which is drawing it in the background color at that position), update the coordinates of the object, and then redrawing the object in a new position. This works best if you use variables for every point in the object you wish to move across the screen and a loop to move the object.

**The moving object in your animation needs to be more than a predefined shape in Java.** For example, you need to animate more than a circle, oval, rectangle, line, etc.

This is your last project, so the effort that you put into this program should reflect that fact, and will be reflected in your grade. If you think you are finished before the due date, add more scenes, detail, or animation to your program. Don't forget to use descriptive variable names for self-documenting code, and use comments freely to explain your program.

**The size for your applet should be a width=760 and a height=520.**

**Important note:** I will submit your source code to "TurnItIn.com" or other sources to verify that your code is uniquely yours as opposed to using code from the Internet or from another student in class, so make sure that you really write this program, or else you will end up with zero points.

This is part of your "hands on" final exam, so be prepared to explain your program. Be ready to explain the algorithms that you used, and why you chose those particular algorithms. Be prepared to answer other questions that may be asked on any and every line of code. Make sure that you follow the programming practices that we have learned in class all year.

**Write everything in one source code file named: LastNameFirstNameFP.java, and don't forget that you need an HTML file named LastNameFirstNameFP.html. You will need to compile your Java Source Code, so you will also end up with a third file: LastNameFirstNameFP.class. Turn in ALL 3 Files to the "T" network directory when you are finished. If you create other classes for your final project, create a folder named LastNameFirstNameFP and turn in the entire folder.**