AP Computer Science Name:
Problem Set GUI A

You will attach this as a cover sheet to your entire, stapled problem set. As usual, with programs you've typed in, upload a screenshot as usual at the appropriate place in the Catlink weblog.

Step 1 Exercises

1. Read Section 2.7 in your textbook.

2. Type in, compile, and execute Example 2.3 ("An Empty Frame") on p. 47.

3. Type in, compile, and execute Example 2.4 ("An Empty Frame with a Pink Panel") on p. 49.

4. Type in, compile, and execute Example 2.5 ("A Frame With 5 Panels") on p. 50.

5. Type in, compile, and execute Example 2.6 ("A Frame With 2 by 2 Grid of Colored Panels") on p. 50.

6. Read Section 3.7 in your textbook.

7. Type in, compile, and execute the main application window and empty color panel for Chapter 3 graphics examples on p. 93.

8. Type in, compile, and execute Example 3.6 ("A Colored Panel Containing a Red Text Message in a Blue Triangle") on p. 97.

9. Type in, compile, and execute Example 3.7 ("A Colored Panel Containing a Red Text Message Centered in a Blue Triangle") on p. 98.

10. Type in, compile, and execute Example 3.8 ("A Colored Panel Containing a Red Text Message in Custom Font Centered in a Blue Triangle") on p. 99.

11. Read Section 4.10 in your textbook.

12. Type in, compile, and execute Example 4.5 ("CircleArea with dialog I/O") on p. 139.

13. Type in, compile, and execute Example 4.6 ("Display Random Colors with I/O") on p. 139.

14. Type in, compile, and execute Example 4.8 ("Red and white bull's eye") on p. 142.

Step 2 Exercises

15. Work Project 2-6: National flags are displayed on various Web sites. The flags of France, Mauritius, and Bulgaria consist of flat, colored areas. Write separate programs that display these flags.

16. Work Project 2-7: Write a program that displays a 3-by-3 grid of black and white rectangles. The rectangles should be positioned so that no two rectangles of the same color are adjacent to each other.

17. Work Project 3-6: Write a graphics program that illustrates the Muller-Lyer illusion.

AP Computer Science Name:
Problem Set GUI A

18. Work Project 3-7: Write a graphics program that displays the coordinates of the center point of a panel in the form (*x*, *y*). This information should be displayed at the panel's center point and be automatically updated when the panel is resized.

19. Work Project 4-11: A checkerboard consists of an 8-by-8 grid of black and red squares in which no two squares of the same color are adjacent. Write a graphics program that displays a checkerboard.

20. Work Project 4-12: Modify the program of Project 4-11 so that it prompts the user for the number of rows and columns of the board before displaying them. Use I/O dialog boxes to accept the inputs.

21. Work Project 4-13: Write a graphics program that illustrates the induced contrast illusion.