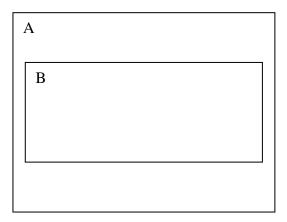
Quiz 2 This quiz is closed book, closed notes. You have 80 minutes to complete it. Your name: _____ 1. (4 points) Programmer convenience is one reason for automatic layout. Give two other reasons. 2. (4 points) List four graphic design principles that would be useful for designing a dialog box.

3. (3 points) List two techniques for achieving greater simplicity in a graphic design.

4. (4 points) Write constraint equations for the following layout, where rectangle B is half the height of rectangle A, centered in rectangle A, and has a 5-pixel margin around it.



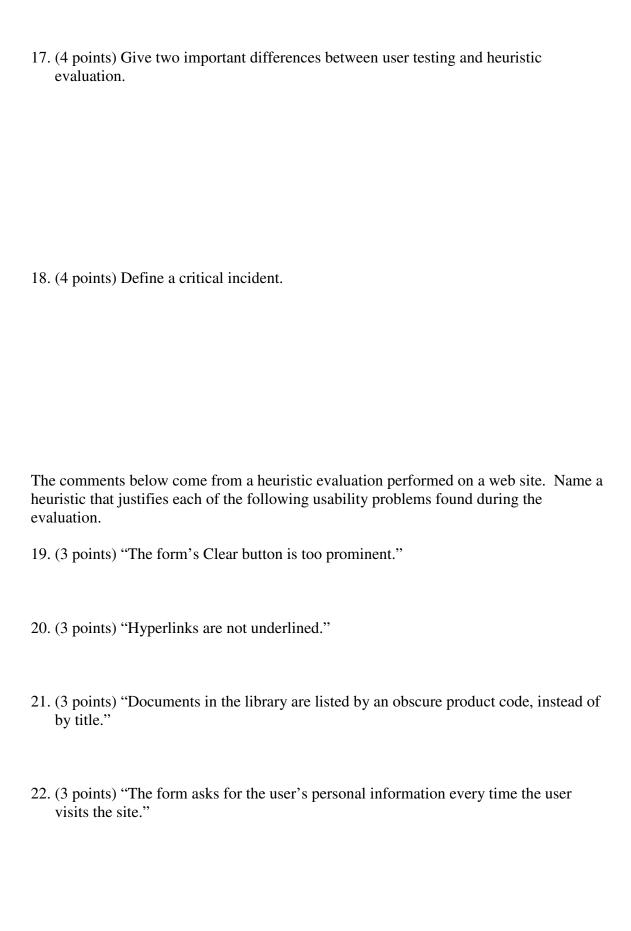
You may use left, right, top, bottom, width, height, all of which are screen coordinates in pixels.

5. (4 points) Explain what selectivity means for visual variables, and give an example of a variable that is **not** selective.

6.	(4 points) Referring to visual variables in your answer, describe 5 different ways that you might make an advertising poster stand out on a crowded bulletin board.
7.	(4 points) Louis Reasoner is designing a grade reporting program, and he proposes visualizing the grade for each homework (0% - 100%) by the angle of a line. Give two reasons why this is a bad idea.
8.	(3 points) List three visual variables that can naturally represent ordered data.
9.	(3 points) List 3 of the Gestalt principles of grouping.

10. (4 points) Explain how Gestalt principles of grouping help you understand the structure of this quiz page.
11. (3 points) Explain why strongly saturated colors are rarely used in good user interface designs.
 12. (3 points) Which of the following problems are least likely to be found by user testing a horizontal computer prototype? A. An important toolbar button is too small and too far away. B. The system's response time is too slow. C. An icon is incomprehensible. D. There isn't enough room on the screen for all the information.
Choose one:

13.	(4 points) Give one advantage of a form builder (or GUI builder) for creating computer prototypes, and one advantage of storyboarding.
14.	(4 points) Give one usability advantage of reusable widgets, and one usability disadvantage.
15.	(3 points) Define toolkit layering, and give one example of a layered toolkit.
16.	(3 points) Explain the difference between Swing and AWT in their approach to widgets.



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In	the	tolio	wing	questions,	you ar	e aes	agning	, a co	ontrollea	experiment	concerning	menus.

23.	. (3 points) The experiment will compare conventional rectangular popup menus with radial (pie-shaped) menus. This is: A. independent variable B. dependent variable C. uncontrolled variable
	Choose one:
24.	. (3 points) The experiment will measure time to make a choice from the menu. This is: A. independent variable B. dependent variable C. uncontrolled variable
	Choose one:
25.	. (4 points) The experiment will use a within-subjects design. What does this mean?
26.	. (3 points) The experiment will only use users who have played a game that uses radial menus (such as the Sims). This decision threatens: A. reliability B. internal validity C. external validity
	Choose one:
27.	. (3 points) Louis Reasoner runs an enormous experiment with 20 different independent variables. He's thrilled to find that exactly one of the independent variables has a statistically significant effect (p=0.05) on the dependent variable. Should he publish his result? Why or why not?

28. (4 points) Explain the differences between formative evaluation and a controlled experiment.
29. (3 points) List 3 things you should say, for ethical reasons, when briefing a user for a user test.
END OF QUIZ