

Name: _____ Grade: _____ / 10 <-- instructor use

Use this quiz as a “crib sheet” on ***using Swing, Part 1***,
until its contents are second-nature for you.

1. To make a frame appear in Java, you construct a _____
and apply the _____ method to it.
2. What method sets the size of a JFrame? (Duh!) _____
3. What class do you **extend** if you want to draw on your class? _____
4. What method do you **override** to do your drawing? _____
5. What must you do in the first line of that method? _____
6. The Graphics object that *paintComponent* is given is in fact a Graphics2D object. Write the statement that *casts* the Graphics object called *graphics* into a Graphics2D object.
7. What class has a method for drawing Shape objects like Rectangle? _____
8. What method draws a Shape (like a Rectangle)? (Duh!) _____
9. How does that method know what to draw?
10. Write statement(s) that construct and draw a rectangle whose **upper-left corner** is at (80, 50) and whose width and height are 200 and 100, respectively. Assume *graphics2* is your Graphics2D object.
11. Write statement(s) that construct and draw an ellipse whose **center** is at (40, 100) and whose width and height are 10 and 30, respectively. Assume *graphics2* is your Graphics2D object.
12. Write a *single* statement that draws a line from (100, 300) to (150, 400). Hint: You don't have to declare the Line2D.Double object, just construct and use it! Assume *graphics2* is your Graphics2D object.

(continued on the back)

13. If you have an `Ellipse2D.Double` object called (say) `ellipse1`, there are two ways to get its width. What are those two ways?

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14. Is a `Line2D.Double` object *mutable*? Yes No (circle your choice)

15. Why do you think that the designers of the `Point2D.Double` class chose to make `Point2D.Double`'s mutable?

16. A `Point2D.Double` is a `Point2D` built from two double's, as the name suggests.

What is the name of the class for a `Point2D` built from two float's? _____

A `Point2D` built from two int's? _____

(Hint: the latter is NOT `Point2D.Int`, alas. Examine the `Point2D` class.)

17. So far in this exercise, you have used two methods of the `Graphics2D` class and one of the `Graphics` class. What are the names of those three methods?

18. List the names of several methods in the `Graphics` or `Graphics2D` classes that you would like to learn more about before this course is over.

19. Write a statement that sets the color of the `Graphics` object named `g` to the predefined color `cyan`.

20. Write a statement that sets the color of the `Graphics` object named `g` to half red and half green and no blue.

21. True or false: once you use `setColor` to set the color for a `Graphics` object, all subsequent drawing and filling on that `Graphics` object will be in that color, unless you do another `setColor` on that `Graphics` object. True False (circle your choice)

22. What is the name of the class you use to draw rounded rectangles? _____

23. List something (surely there is something!) that became clear to you as a result of today's class.

24. Note anything from today's session (or from the course so far) that you would like me to revisit (or write N/A).