



Expand All

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General

▼ How can I download various input files (such as `fair-coin.txt` and `world.txt`) for testing?

Click the *Project* link at the top of the page. It contains an *IntelliJ* project, together with various input files, which you can use to develop your program. Even if you don't use *IntelliJ*, the zip file contains various sample input files.

▼ I'm not familiar with the command line. How do I get started?

If you installed our custom *IntelliJ* programming environment, you can access a *bash* shell from OS X, Windows, or Linux.

▼ How do I access the standard libraries in `stdlib.jar`?

You must add `stdlib.jar` to your *Java classpath*.

- If you installed our custom *IntelliJ* programming environment, you should be all set. From *IntelliJ*, be sure to use the provided *IntelliJ* project folders, which are preconfigured to add `stdlib.jar` to the Java classpath. From the command line, use `javac-introcs` and `java-introcs` to compile and execute, which add `stdlib.jar` to the Java classpath. If using Windows, be sure to use Git Bash (and not Command Prompt, PowerShell, or WSL).
- If you are using a different environment, here is some guidance on [adding stdlib.jar to the Java classpath](#) Typically, adding `stdlib.jar` to your Java classpath must be done separately for each environment (e.g., *bash*, *IntelliJ*, *Eclipse*, *Command Prompt*).

Shannon entropy

▼ How do I compute the base-2 logarithm of x ?

Unfortunately, Java's math library does not have such a function. The function `Math.log(x)` returns the natural logarithm (base e) of x ; the function `Math.log10(x)` returns the base-10 logarithm of x . You can use `Math.log(x) / Math.log(2)` to get the base-2 logarithm.

▼ How do I print a floating-point number x with 4 digits of precision after the decimal point?

Call `StdOut.printf("%.4f\n", x)`. See the [booksite](#) for more details about the formatted printing. Many other programming languages (e.g., C, Python, Matlab, R, Ruby, Go) also support `printf` for formatted printing, so it's worth your time to learn the basics.

Checkerboard

▼ How do I set the pen color to blue or light gray?

These are predefined colors. Use `StdDraw.setPenColor(StdDraw.BLUE)` or `StdDraw.setPenColor(StdDraw.LIGHT_GRAY)`.

▼ Can I draw the background in light gray and explicitly draw only the blue squares?

No. The instructions says to draw all n^2 squares, one at a time.

World maps

▼ Can I draw the boundaries as a sequence of line segments instead of a polygon?

No. You must draw each polygon using `StdDraw.polygon()`, as specified.

▼ My favorite country is not supplied as one of the data files. Why not?

Sorry, please don't take any offense. A few of the source data files that we used had technical discrepancies, which made converting them into our format more challenging. If you wish to add a country, please send us an input file in the specified format.