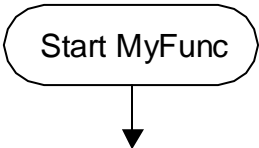
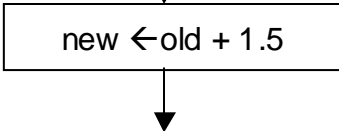
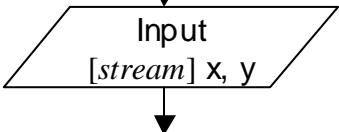
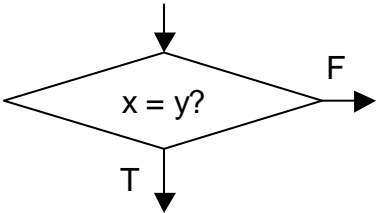
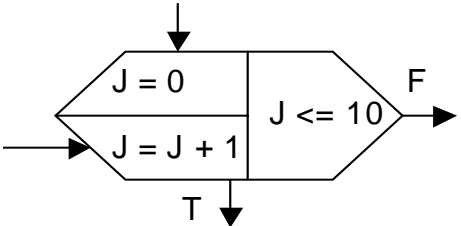
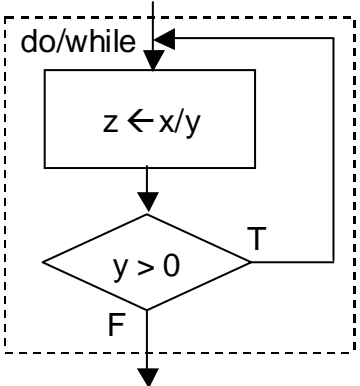
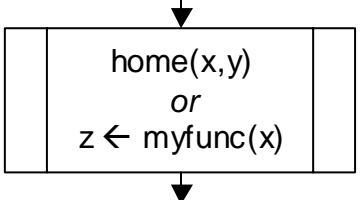


Operation	Flowchart Symbol	Pseudocode	Indented Java Examples
Begin or End of Algorithm		Start main	<pre>public static void main(...){ ... }</pre>
Process/Assignment		$new \leftarrow old + 1.5$ -or- $old + 1.5 \rightarrow new$	<pre>new = old + 1.5;</pre>
Input/Output		Input from <i>stream z</i> Output to <i>stream x, y</i>	<pre>x = scanner.nextDouble(); System.out.println("X = " + x);</pre>
Selection		if <i>cond</i> then <i>block</i> else <i>block</i> <i>next step</i>	<pre>if (x == y){ ... } else { ... }</pre>
Counter Controlled Loop		do <i>j = 1, 10</i> <i>block</i> <i>next step</i>	<pre>for (j=1; j<=10; j++) { ... }</pre>

<p>Structured Repetition</p>		<p><i>while cond</i> <i>block</i> <i>next step</i> – and – <i>do</i> <i>block</i> <i>while cond</i> <i>next step</i></p>	<pre>while (y <= YMAX) { ... } – and – do { ... } while (y <= YMAX);</pre>
<p>General Repetition (Many forms possible; see note below.)</p>	<p>See <i>Selection and Structured Repetition</i> symbols</p>	<p><i>while</i> <i>block</i> <i>if cond break</i> <i>block</i> <i>next step</i></p>	<pre>while (true){ ... if (isDone()) break; ... }</pre>
<p>Message (Method Call)</p>		<p><i>home(x,y)</i> <i>z ← myfunc(x)</i> -or- <i>myfunc(x) → z</i></p>	<pre>Plot.home(x,y); z = myObj.itsMethod(x);</pre>

Notes and Comments:

In the table above the flowchart, pseudocode and Java examples do not generally correspond (i.e., they don't necessarily represent the same action).

Use indentation to show structure in pseudocode and Java source code.

cond is a logical condition (a Boolean expression).

next step means the next step in the algorithm. In Java, this can be any statement.

stream means any open stream of the appropriate type.

Some coding styles do not permit “General Repetition” structures. Use only “Structured Repetition” forms – *while* and *do/while* loops. This issue referred to as “one way in, one way out” in Wu, 4th ed.