| Operation | Flowchart Symbol | Pseudocode | Indented Matlab Examples |
| :---: | :---: | :---: | :---: |
| Begin or End of Algorithm | Start MyFunc | Begin myFunc End myFunc | ```function res = myFunc(arg) end``` |
| Process/Assignment | $\text { new } \leftarrow \text { old }+1.5$ | $\begin{aligned} & \text { new } \leftarrow \text { old }+1.5 \\ & \text {-or- } \\ & \text { old }+1.5 \rightarrow \text { new } \end{aligned}$ | new = old + 1.5; |
| Input/Output |  | Input z from source Output x \& y to dest | z = input('Enter value: '); <br> disp(['Result = ' result]); <br> fprintf(outfile, $\mathrm{x}=\frac{\circ}{\circ} 5.2 \mathrm{f}$ ', x); |
| Selection |  | if cond then <br> block <br> else <br> block <br> next step | ```if x == y else end``` <br> See also switch/case and try/catch. |
| Counter Controlled Loop |  | $\text { for } \mathrm{j}=1,10$ <br> block next step | $\begin{aligned} & \text { for ind }=1: 10 \\ & \text {... } \\ & \text { end } \end{aligned}$ |


| Structured Repetition | do/while | while cond block next step | while $y$ <= YMAX end |
| :---: | :---: | :---: | :---: |
| General Repetition (See note below) | See Selection and Structured Repetition symbols | while <br> block <br> if cond break <br> block <br> next step | ```while true if isDone break end end``` |
| Function Call |  | ```home(x,y) z}<\mathrm{ myfunc(x) -or- myfunc(x) }->\textrm{z``` | $\begin{aligned} & \text { plot (myx, myY); } \\ & \mathrm{z}=\operatorname{mix}(\mathrm{x}, \mathrm{y}) ; \end{aligned}$ |

Notes and Comments:
The flowchart, pseudocode and Matlab examples do not generally correspond (i.e., they don't necessarily represent the same action).
Use indentation to show structure in pseudocode and Matlab source code.
cond is a logical condition (a Boolean expression).
next step mans the next step in the algorithm. In Matlab, this can generally be any statement.
source and dest means any open data source or destination of the appropriate type.
Some coding styles prohibit "General Repetition" structures. If general repetition is used, there should only be one way in and one way out.

