

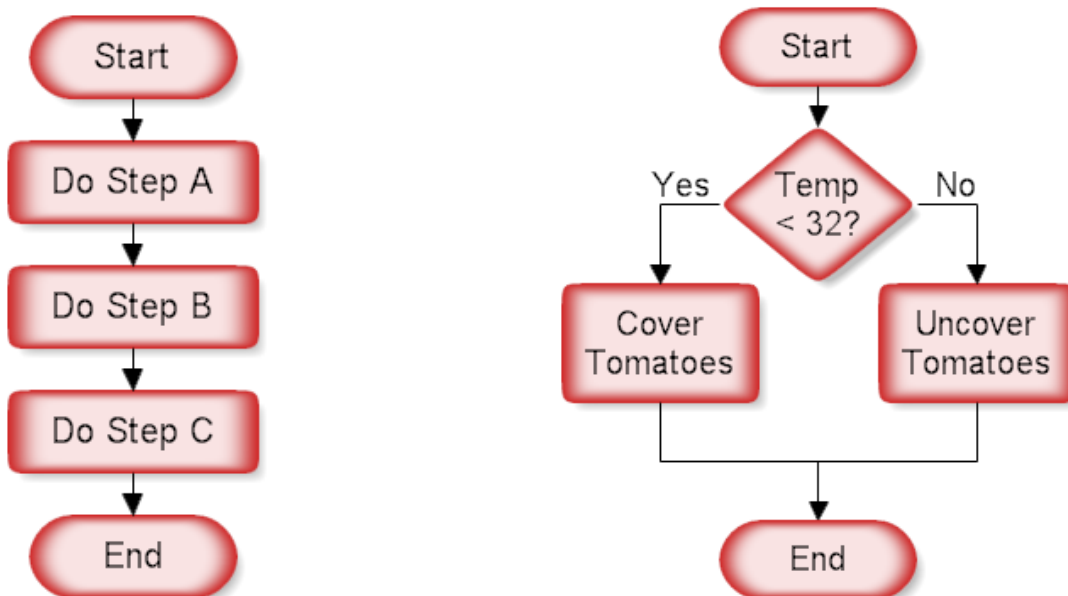
Creating Algorithms to Solve Problems.

When creating algorithms you can either write them using Flowchart symbols or write them using Pseudo Code (simple instructions that are similar to program code).

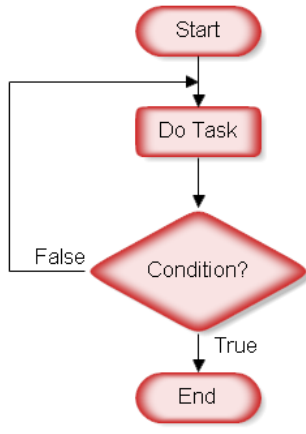
These are the standard symbols to use when creating a **flowchart**:



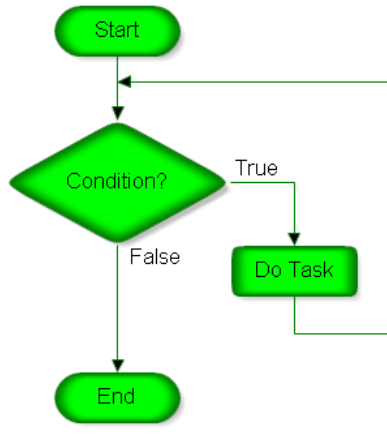
Examples of Sequence, Selection and Loops in Flowcharts



Repeat Until Loop



Do While Loop



Standard key words to use in **Pseudo Code**:

Programming Technique	Example
Selection/Conditional Statement	IF <i>condition</i> THEN <i>statement_to_execute_if_true</i>
	IF <i>condition</i> THEN <i>statement_to_execute_if_true</i> ELSE <i>statement_to_execute_if_false</i> ENDIF
Iteration/Loops	FOR <i>index</i> = <i>start_value</i> TO <i>finish_value</i> <i>statements_to_carry_out</i> ENDFOR
	WHILE <i>condition</i> THEN <i>statements_to_carry_out</i> ENDWHILE
	REPEAT <i>statement</i> UNTIL <i>condition</i>
Operators	= Is the same as (is equal to) > Greater Than < Less Than >= Greater than or equal to <= Less than or equal to <> Is not equal to (is not the same as)
Input and Output	INPUT <i>variable_name</i>
	OUTPUT <i>variable_name</i>
Function/Procedure	SUBROUTING <i>name</i> <i>statements_to_carry_out</i> END SUBROUTINE
	PROCEDURE <i>name</i> <i>statements_to_carry_out</i> END PROCEDURE
	FUNCTION <i>name</i> (<i>input_values</i>) <i>statements_to_carry_out</i> RETURN <i>result_value_of_function</i> END FUNCTION

