# Algorithm Description – Good Times

In plain English, point-form, think through the steps necessary to solve the given problem.

Make use of key words like *compare*, *iterate*, *store*.

In code, of course, these translate to conditional statements, loops, and using variables.

## Algorithm

INPUT

* Iterate until input is between 0 and 2359 AND last two digits of input are between 0 and 59
  + When input meets these conditions, store in a variable to track Ottawa time

PROCESS

* Store Victoria time in a variable that is the Ottawa time, less 300
* When the Victoria time is negative after the shift, add 2400 so that it presents properly (e.g.: -50 would be properly shown as 2310)
* When the Victoria time is more than 2359, subtract 2400 so that it presents properly (e.g.: 2430 would be properly shown as 30)
* Process Edmonton time same way as Victoria above, except time shift is Ottawa time less *200*
* Process Winnipeg time same way as Victoria above, except time shift is Ottawa time less *100*
* Process Halifax time same way as Victoria above, except time shift is Ottawa time plus 100
* Process St. John’s time same way as Victoria above, except time shift is Ottawa time plus 130
* Additionally use a conditional to check when St. John’s time goes past 59 minutes
  + e.g.: Ottawa time is 0059, 00:59 AM
    - Then St. John's time is 2:29 AM and would be shown as 0189 but should be 0229
  + Use integer and modulus division to sort this out (not quite sure of logic at moment but know this situation needs to be handled)

OUTPUT

* Print the Ottawa time
* Print the Victoria time
* Print the Edmonton time
* Print the Winnipeg time
* Print the Toronto time (using the Ottawa time variable as the times are identical)
* Print the Halifax time
* Print the St. John’s time