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