

CH40208: TOPICS IN COMPUTATIONAL CHEMISTRY

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# PYTHONIC LOGIC AND LOOPS

## LOGICAL OPERATORS

- ▶ Python and Jupiter Notebook can be used as a simple calculator
- ▶ Let's make our code more intelligent!
- ▶ To do this we can use *Boolean logic*; True or False questions
- ▶ Python is able to assess the truth of a particular operation

# LOGICAL OPERATORS



DEMO

## FLOW CONTROL

- ▶ We are then able to use this Boolean logic to *control* the path that the code will follow
- ▶ To do this we use `if` statements; these ask `if x is True?`
  - ▶ Note the `is True` part is often implicit
- ▶ The `if` statement is often accompanied by an `else`; which is the path taken when `x is False`
- ▶ The third modifier in an `if` statement is the `elif` (short for else if); this offers an alternate path to follow

## FLOW CONTROL



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