# Algorithm Description – Calendar

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 an integer between 1 and 7 inclusive is provided
  + When provided, store in a variable to track starting day of the month
* Iterate until an integer between 28 and 31 inclusive is provided
  + When provided, store in a variable to track number of days in the month
* Iterate until an integer between 1 and (*days in month*) inclusive is provided
  + When provided, store in a variable to track the special day

PROCESS

* Print the header line with days of the week
* Iterate 37 times
  + When month hasn’t started yet (not at start day)
    - Print three spaces
  + Otherwise…
    - Increment a variable to track current day in the month
    - When current day a single digit day
      * If special day
        + Print a space, an asterisk, and the day of month
      * Otherwise
        + Print two spaces and the day of the month
    - When current day a two-digit day
      * If special day
        + Print an asterisk, and the day of month
      * Otherwise
        + Print one space and the day of the month
  + If the month is finished, stop the loop
  + Print a space to separate columns of month
  + If 7 days have been printed, print a new line character

OUTPUT

* Printed as we went through the process section