Group #:
Name:

EOSC 211 – Week 5 – Worksheet 1 – Selections

Write pseudo-code or MATLAB code to solve the following problems.
Do NOT use any built-in functions.

EXERCISE 1: Assume you have two variables `X` and `Y`, which each hold a single number. Assign the smallest of the two numbers to the variable `SML`.

EXERCISE 2: Modify your code, so that `SML` contains a `NaN` if the values `X` and `Y` are the same.

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EXERCISE 3: Modify your code to put the smallest of the numbers in a 3-element vector `X=[a b c]` into the variable `SML`.

EXERCISE 4: Longitudes "wrap around" the earth, so that any longitude may be given as a positive value between 0 and 360 degrees (going eastward), or a negative value between 0 and -360 degrees (going westward). The location of the "0" degree line is the same in both cases. But this means that a longitude of 355 and a longitude of -5 refer to the same place!

Given two arbitrary values `LON1` and `LON2` in the range -360 to +360, write a selection that decides whether these two values refer to the same point. Create a variable `same` that has a value of `1` if they refer to the same point and a value `0` if they refer to different points. Does it work? - Test your code with pairs of numbers like (5,5), (5,-355), (5,355),(-5,355),(0,0),(360,360),(0,360), etc.