**Common branching bloopers**

These exercises highlight some common mistakes in decision-making scripting.

For questions 1-6 below, read the instructions for exercise #1, ski.py, in the decision-making exercises ([http://courses.ncsu.edu/gis540/common/scripting\_topics/decisions.htm#exercises](http://www.google.com/url?q=http%3A%2F%2Fcourses.ncsu.edu%2Fgis540%2Fcommon%2Fscripting_topics%2Fdecisions.htm%23exercises&sa=D&sntz=1&usg=AFQjCNEKw8n-MoPFKH6TWrvd2_1NDcpHmQ)) and answer the questions below about three incorrect solutions to ski.py. Run the scripts to test the output for each. Use the Interactive Window to check the Boolean value (True or False) of the conditional statements in the script. Use this information in your responses. (Only the questions below will be graded; we will not collect ski.py). For questions 7-9, modify the pseudocode as specified.

1. The script, ski1.py (http://courses.ncsu.edu/gis540/common/supMaterials/supCode/ski1.py), prints the wrong price for 5 year olds. Explain why it doesn’t print the correct fee and why it prints the fee that it does.
2. The script, ski2.py (http://courses.ncsu.edu/gis540/common/supMaterials/supCode/ski2.py), prints the wrong price for 21 year olds. Explain why it doesn’t print the correct fee and why it prints the fee that it does.
3. The script, ski3.py (http://courses.ncsu.edu/gis540/common/supMaterials/supCode/ski3.py), prints the wrong price for 10 year olds. Explain why it doesn’t print the correct fee and why it prints the fee that it does.
4. List the line numbers for two lines of (non-blank, non-comment) code in ski3.py that should be entirely removed because they are irrelevant to the purpose of this script.
5. Which homework guideline from the syllabus do ski1.py and ski2.py follow but ski3.py doesn't?
6. Which homework guildeline from the syllabus would ski1.py, ski2.py, and ski3.py all violate if these were turned in as solutions to ski.py?

Modify the pseudocode in each part below as specified.

1. Modify the pseudocode in pseudo1.txt ( http://courses.ncsu.edu/gis540/common/supMaterials/supCode/pseudo1.txt ). Use the keywords ELSEIF and ELSE while retaining the same functionality. Explain why the modifications improve efficiency of the code.

GET area from user

IF area < 5

SET plot\_size to small

ENDIF

IF 5 <= area <= 10

SET plot\_size to medium

ENDIF

IF area > 10

SET plot\_size to large

ENDIF

1. Modify the pseudocode in pseudo2.txt ( http://courses.ncsu.edu/gis540/common/supMaterials/supCode/pseudo2.txt )

Remove the unnecessary conditional branch.

GET shapefile name from user

GET shape type

IF shapefile type NOT in point

Do nothing

ELSE

CALL Voronoi tool

ENDIF

1. Modify the pseudocode in pseud03.txt ( http://courses.ncsu.edu/gis540/common/supMaterials/supCode/pseudo3.txt )

Rewrite the nested conditional structure as a single compound conditional.

GET file path from user

IF file exists

IF file ends with csv

CALL Make xy event layer tool.

ENDIF

ENDIF