Lab 3.4 - If My Calculations Are Correct...

In this lab, you will write custom reporter blocks to perform a number of useful calculations and computations.

# 1 - Simple Computations

1. Write a custom SNAP reporter block called "min" that determines which of two numbers is smaller and reports that value. If the two numbers are equal, report either one.
2. Write a custom SNAP reporter block called "max" that determines which of two numbers is larger and reports that value. If the two numbers are equal, report either one.
3. Write a custom SNAP predicate block called "between" that determines if a number is between two other numbers. If the first number is equal to either of the other two numbers or is between them, the block should report "true".
4. Write a custom SNAP predicate called "at least as long as" that determines whether or not word has at least a specified number of letters.

# 2 - Stepping Things Up

1. Write a custom SNAP reporter block called "distance to" that computes and reports the distance from a sprite's position to another point. Use the "x position" and "y position" blocks to determine the sprite's position. Remember that the formula for the distance between points *(x1, y1)* and *(x2, y2)* is:
2. Write a custom SNAP predicate block called "contains letter" that determines whether or not a word contains a particular letter. You can consider upper-case and lower-case letters to be different for the purposes of matching.

## Grading Scheme/Rubric

| **Lab 3.3 Criteria** |  |
| --- | --- |
| 1.1 min | 0.25 points |
| 1.2 max | 0.25 points |
| 1.3 between | 0.5 points |
| 1.4 at least as long as | 0.5 points |
| 2.1 distance to | 0.5 points |
| 2.2 contains letter | 0.5 points |
| **PROJECT TOTAL** | **2.5 points** |