Introduction to Computer Science

# Lab 3.4 - If My Calculations Are Correct...

In this lab, you will write custom reporter blocks to perform several 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 a 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:

$$\sqrt{(y_2-y_1)^2+(x_2-x_1)^2}$$

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## **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
PROJECT TOTAL	2.0 points