## Lab 3.4 - If My Calculations Are Correct

In this lab, you will write custom reporter and predicate blocks to perform several useful calculations and computations.

## **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.

## **Bonus: Stepping Things Up**

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  $sqrt((y2-y1)^2+(x2-x1)^2)$ .

## **Grading Scheme/Rubric**

Lab 3.4 Criteria	Points
1.1 min	0.5
1.2 max	0.5
1.3 between	0.5
1.4 at least as long as	0.5
Bonus	0.5
PROJECT TOTAL	2.0 points