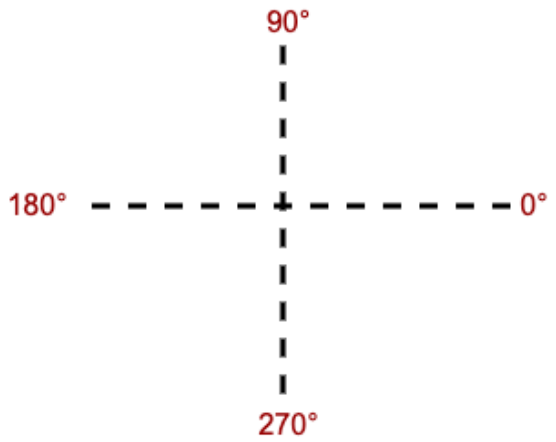
Right Angle Curling Stone Momentum Problem

Step 1: Draw in your curling stones including their masses and velocities in the picture below. Then calculate the x-momentum and y-momentum of the system. Make sure you make things negative when the stones are moving left or down. Show your work neatly below.



Step 2: After the collision, both stones are moving as a single unit. Use conservation of momentum to find the velocity of the system in the x and y dimensions separately and then find the total velocity (speed and heading). Show your work neatly below

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Step 3: Put the final velocity on the compass rose shown below and then enter your answers into the program to check that you did everything correctly.