Snowflake Challenges (Snowflake Draw)

1. Main loop
    a. Copy the main “forever” loop.
2. In the DrawLines function, first make it draw just **one** line (no reflection). This should give you a program that follows the mouse.
3. In the DrawLines function, first make it draw **two** lines (reflection around the y axis only).
4. In the DrawLines function, first make it draw **four** lines (reflection around both x and y axes).
5. In the DrawLines function, first make it draw **eight** lines (reflection around both x and y axes, and with x and y swapping places).
6. Customize
    a. Add a key to change the color.
    b. Add a key to increase the line size.
    c. Add a key to decrease the line size.
    d. Advanced: Add keys to change the number of reflections (1, 2, 4, or 8)

Snowflake Challenges (Snowflake Generator)

1. Create the following variables (and set the slider ranges to reasonable numbers):
    a. Size (length) of main arms.
    b. Number of main arms.
    c. Main arm pen size.
    d. Size (length) of mini arms.
    e. Number of mini arms.
    f. Mini arm pen size.
    g. Mini arm angle.
2. When the “random design” sprite is clicked:
    a. Set each variable to a number in the ranges you chose above.
3. In the “snow drawer” sprite, when the space key is pressed:
    a. Go to 0, -120
    b. Clear the pen drawing, pen down, set the pen color
    c. Make an outer “repeat” loop that repeats for the number of main arms.
        i. Go to 0, -120
        ii. Turn 360 divided by the number of main arms.
        iii. In a “repeat” loop, draw the mini arms:
            1. Set the pen size to the main arm pen size.
            2. Move the main arm size divided by the number of mini arms.
            3. Call the MiniArmV function to draw a mini arm.
            4. In the MiniArmV function:

    a. Set the pen size to the mini arm pen size.
    b. Make a “V” by turning left, going the mini arm length the back, turning back to the right, going the mini arm length and then back, turning left back to the starting angle.
4. Make it snow:
    a. In the “snow 1” sprite, create a forever loop that clones the sprite and waits 0.1 seconds.
    b. In a “when I start as a clone” block:
        i. Decide if it’s a left or right flake.
        ii. Position the flake at its starting position.
        iii. In a “repeat until” loop, move the flake down a bit, until it reaches y < -175.
        iv. Delete the clone