

1. Let's create some aRt!

- (a) Install the **aRtsy** package. Provide the code in an R chunk that does not run. You only need to install it one time.

Solution:

```
# Code to install the aRtsy package
```

- (b) Load the **aRtsy** package. Provide the code in an R chunk that does run. We need to load the library each time it is run.

Solution:

- (c) Running `demo("aRtsy")` or `vignette("aRtsy")` don't return any helpful demos or tutorials. However, if you run `help("aRtsy")` you will find a link to a tutorial. Recreate the first figure they make using `canvas_collatz()`. Make sure to update the caption.

Solution:

```
# help("aRtsy")
```

Figure 1: A caption...

- (d) Change the randomization seed to 1313, which will change the random numbers generated to create the plot. Can you see the difference? Make sure to update the caption.

Solution:

Figure 2: A caption...

- (e) Now, create a new Collatz conjecture plot by specifying the following arguments. Note you will find the help file for the `canvas_collatz()` function to be rather helpful. Make sure to update the caption.

- Use the `vrolik4` color palette. Note you can find other by running `?colorPalette` in the console.
- Make the background grey. Note a hexcode for grey is `#dbdbdb`.
- Specify that there should be 72 strands.
- Specify the angle used for bending the sequence for odd numbers as -0.05.
- Specify the angle used for bending the sequence for even numbers as 0.0145 (note this is the default).

Solution:

Figure 3: A caption...

- (f) Make another plot using the tutorial – feel free to be creative here! Note that I leave creating the R chunk and figure environment to you here. Make sure that your code is well-formatted and your plot is appropriately scaled.

Solution:

- (g) Use `citation()` to get the BiBTeX citation for the **aRtsy** package and use `\citep{}` to add a parenthetical citation to the end of the sentence below. **Solution:** We created the generative art in Question 1 using the **aRtsy** package for R.