Introductory HW 3: More Turtle Analysis

In the Turtle Survival lab, I told you that the turtle nursery protects a beach in San Pancho, Mexico. In the lab, we looked at some of the variables that might contribute to the success or failure of eggs hatching. Now, we'll look at one more – in the lab, we noted that Sean had discovered that the turtles' eggs that are collected on the south beach hatch at a little higher a rate than those on the north beach. Let's see how he came up with that!

Here, you'll be using <u>Introductory HW 3 More Turtle Analysis Data</u> (https://bit.ly/MoreTurtleDataMTH098).

Start by watching <u>this video</u> (https://bit.ly/TurtleAnalysisVideoMTH098), which will show you some cool Sheets data manipulation. Then answer the questions below. (There is no need to show work since Sheets will be doing the calculations for you.)

- 1. (5 points) What's the overall hatch rate for the north beach?
- 2. (5 points) How about for the south beach?

It's tempting, of course, to ask "why" these are different by a few percentage points – but we need to wait until more data is in. That way, we can see if this was a weird little random glitch, or something more meaningful. Only time (and stats) will tell.

3. (extra 5 points) *This question is totally optional.* There's a second tab on that spreadsheet that correlates the hatching percentages with the times the nests were pulled off the beach. Break the data into 6-hour blocks (midnight to right before 6 AM, 6 AM to right before noon, noon to right before 6 PM, and 6 PM to right before midnight) and see if any time periods of collection yield higher hatch rates. Again, no need to show work, but please supply the rates for all four of the time blocks. Once you do, you'll notice that one is a bit higher (about 10%) than the other 3 – please propose a reason why that might be!