

Your Name: \_\_\_\_\_

Names of people you worked with: \_\_\_\_\_

**Instructions:** Work on this problem in class with your group (if you are attending class synchronously) or out of class (hopefully with a person or two! if you are attending class asynchronously). The problem should be done on a piece of paper with a pencil or on some kind of tablet. The problem should **not** be typed up or done in LaTeX.

Work for a *maximum* of 15 minutes on the problem (regardless of what time you are working). *Do not* come back to the problem to “fix it up” or “finish it.” Be sure to write down the names of the people you worked with during class (or outside of class).

Take a picture of your work and use a scanning app to create a pdf (or create a pdf directly from your tablet). Upload your work to Gradescope (via Sakai) within 24 hours of class.

**Task:** Read the article from the APM Research Lab (<https://www.apmresearchlab.org/covid/deaths-by-race>) which includes the following quote:

Nationwide, Black Americans have experienced 15.7% of all deaths of known race, but represent 12.4% of the population.

**Important:** If this topic is one you’d prefer not to discuss, feel free to turn off your camera during the breakout rooms and write “pass” on the warm-up to turn in. Please only engage at the level in which you feel comfortable.

Let  $p$  = probability that the next American to die from Covid-19 is black. (Keep in mind the notation I’ve used is meant to indicate that  $p$  is a *parameter* of interest.)

1. If there is no racial association with Covid-19 mortality, what is the value of  $p$ ? Additionally, what do we call this particular **claim** about  $p$ ?
2. What is the claim that APM Research Lab seems to be making with respect to  $p$ ? And what do we call that **claim**?
3. If indeed  $p = 0.124$  is actually true in the population, we can calculate the probability that of all the Covid-19 deaths, 15.7% or more would be Black Americans. What is the name we give to that probability calculation?