

MATH216 HW 2

Due: Wednesday, March 6th at 11:59pm

Please submit an electronic copy of your assignment to both *alyford@middlebury.edu* and *alorn@middlebury.edu* using the subject line: MATH216 - HW2

The following questions use the **babynames** data set in the *babynames* package. Please submit your report as a knitted HTML file using R Markdown.

- 1) According to this data set, what are the top 10 most common baby names for US babies, and how many people have been born with each of these 10 names?
- 2) Use these data to construct a graph showing the number of US births for each of the years since 1880. Interpret this graph.
- 3) Calculate the total number of babies born since 1880 whose names contained the letter “a”. Repeat this for each of the 4 other vowels, and then construct a graph displaying your results—which vowel was the most common?
- 4) Identify the two longest names given to at least 1000 US babies.
- 5) Construct a graph of the average length of newborn babies’ names over time. Interpret your findings.
- 6) Construct a graphic showing the change in the proportion of names beginning with a vowel over time and the change in the proportion of names ending with a vowel over time.