

# Math 201, Spring 2021

## Problem Set # 7

Due March 23, 2022 at 11:59pm on gradescope

**Question 1.** A pollster would like to estimate the fraction  $p$  of people in a population who intend to vote for a particular candidate. How large must a random sample be in order to be at least 95% certain that the fraction  $\hat{p}$  of positive answers in the sample is within 0.02 of the true  $p$ ?

**Question 2.** Approximate the probability that out of 300 die rolls we get exactly 100 numbers that are multiples of 3. Hint. You will need the continuity correction for this.