

## FAHA Assignment • Chapter 7 • Probability

*Aim for a clear and concise response. Answers should be no more than 200 words.*

Consider the R ratio Simon introduced in the Chapter 5 lecture, "The Marriage and Divorce of Capitalism and Democracy part 2" [12:20]. The ratio is composed of three terms:

1.  $p(\text{capitalism, democracy})$ , *i.e.* the probability of a newspaper article containing both of the terms "capitalism" and "democracy"
2.  $p(\text{capitalism})$ , *i.e.* the probability of a newspaper article containing the term "capitalism"
3.  $p(\text{democracy})$ , *i.e.* the probability of a newspaper article containing the term "democracy"

The ratio is then given by the equation:

$$R = p(\text{capitalism, democracy}) / p(\text{capitalism}) * p(\text{democracy})$$

*In no more than 200 words*, describe how the R ratio can be understood through the lens of two of the three interpretations of probability discussed in the lecture: frequentist, propensity, and subjective.

### Grading Rubric

- Conveys an understanding of each chosen interpretation of probability: +2
- Correctly applies that interpretation to the components of the R ratio: +2
- Total points: X out of four