Answer the questions below.

1. Why is reproducibility important? (Select all that apply.)

☐ It works around proprietary restrictions

☐ It guarantees certainty

☐ It fosters transparency

☐ It allows for step-by-step verification of results

2. A 2018 study by Haber et al. supported the following hypotheses, except:

○ On average, the academic articles studied have relatively low strength of causal inference

○ On average, the media articles studied have inaccurately reported key properties of the study

○ On average, the academic articles studied have slightly overstated strength of causal language

○ On average, media and academic institutions exaggerate the strength of causal inference findings

3. Researchers have tried different ways to account for discrimination or to ensure fairness in their work. Which of these did we <u>not</u> discuss?

○ Simulation and off-policy estimation in dynamical systems

○ Causal modelling with sensitive attributes as confounders in biased data

○ Causal path decomposition with directed acyclic graphs

○ Discrimination as a path-specific effect

4. In a business setting, in what instances is observational causal inference helpful? (Select all that apply.)

☐ When A/B testing is too expensive financially or otherwise

☐ When experiments did not go as planned but we still have access to data

☐ When we regret not testing after a particular event

☐ When we need to prioritise what experiments to run in the future

5. Provide a summary of the industry case study:

Haber, N., Smith, E. R., Moscoe, E., Andrews, K., Audy, R., Bell, W., Brennan, A. T., Breskin, A., Kane, J. C., Karra, M., McClure, E. S., Suarez, E. A. (2018). Causal language and strength of inference in academic and media articles shared in Social Media (claims): A systematic review. PLOS ONE, 13(5). https://doi.org/10.1371/journal.pone.0196346