

# WEEK 2 HANDOUT

Gov 50 Data Science for the Social Sciences

John Koo

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## Math Recap

### Probabilities and expectations

	Discrete Variables	Continuous Variables
Distribution		
Probability		
Expectation		

*Q: What is the expectation of a six-sided die?*

## **Conditional Probabilities and Conditional Expectation**

Bayes Rule:

*Q: What is the expectation of a six-sided die, given that the number is even?*

## **Potential Outcomes Framework and Causal Inference**