# Game Theory, Spring 2024 <br> Problem Set \# 4 

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Due Apr 17 at 5:15 PM

## Exercise 1

Consider the following extensive-form game:


1. Write down the formal definition of this extensive-form game.
2. Find its Nash equilibria in pure strategies.
3. Find its weak perfect Bayesian equilibria in pure strategies.

## Exercise 2

1. In the game from Example 3, find all weak perfect Bayesian equilibria in mixed/behavior strategies (or show that none exsits).
2. In the game from Example 4, find all the remaining weak perfect Bayesian equilibria.

## Exercise 3

Consider the following signaling game:


1. Write down the formal definition of this signaling game.
2. Find its separating equilibria for all $0<p<1$.
3. Find its pooling equilibria for all $0<p<1$.
