**HW1 – F650 – Summer 2022**

Noble House Partners faces a project with unusual cash flows so it has asked you to weigh in on the value of retaining the option to shut down the project ahead of schedule. The project is one of many the company is pursuing at the moment and their CFO informs you that they would normally apply a 22% cost of capital to a risky project like this one.

Their CFO explains the project as follows: An initial investment of $14 million in assets with a CCA rate of 30% (tax rate of 25%), after-tax cash flows the first year of $6 million. At the end of the first year, we will get a forecast of next year's value based on market conditions, either positive or negative with a 50% chance of either outcome. If things look positive, in year 2 cash flows will be $9 million after tax and if they look bad, $3 million.

**If the project assets can be salvaged for $9 million in year 1 or $6 million in year 2, how much is developing the option to shut the project down early (at t=1) worth to Noble House?**