The design of a new product is expected to take 2 years, at a cost of $10M/year. There will be two cash outflows, each for $10m at the end of year 1 and year 2.

There is a 0.7 probability that the product will be technically feasible. If feasible, the product can be launched at year three. The investment is completed at the end of this year with an estimated cost of $8.57M; cash outflow at the end of year 3 is $8.57M.

If launched, the product will be a commercial success with probability 0.75, earning net cash inflow of $50M/year for 2 years at the end of years 4 and 5.If it is a commercial failure, then the net cash inflow is only $6M per year at the end of years 4 and 5.

Graphical representation is shown below

Minimum acceptable rate of return, or interest rate, or discount rate is 15%.

The present value of one dollar at the end of year t using 15% interest rate is given below.



Compute Expected Commercial Value (Expected NPV) of this project.