# HW 9 Simple Discounting

Wednesday, November 4, 2020 12:50 PM

Passed solution review

a. A project costs $10 up front and has net benefits of -$1 at the end of the first year and $15 at the end of the second year. The discount rate is 0.05. What is the NPV?

$NPV = B - C \qquad PV = Y/(1+i)$

$PV = 9/(1.05) + 16/1.05^2 + -10/1.05^0 = -.95 + 13.6 - 10 = 2.65$

$NPV = 2.65$

b. At what discount rate would the NPV be 0? (You may just want to use a spreadsheet, trying different rates until you find the right one, to solve this. But, write out the equation that defines what you are solving for in your answer.)

$0 = -1/(1+i) + 15/(1+i)^2 - 10$

$i = 17.577\%$