Project 2

Ridag Co plans to replace an existing machine and must choose between two machines. Machine 1 has an initial cost of $200,000 and will have a scrap value of $25,000 after four years. Machine 2 has an initial cost of $225,000 and will have a scrap value of $50,000 after three years. Annual maintenance costs of the two machines are as follows:

Year	1	2	3	4
Machine 1 ($ per year)	25,000	29,000	32,000	35,000
Machine 2 ($ per year)	15,000	20,000	25,000	

Where relevant, all information relating to Project 2 has already been adjusted to include expected future inflation.

Taxation and capital allowances must be ignored in relation to Machine 1 and Machine 2.

Other information

Ridag Co has a nominal before-tax weighted average cost of capital of 12% and a nominal after-tax weighted average cost of capital of 7%.

Required:

(a) Calculate the net present value of Project 1 and comment on whether this project is financially acceptable to Ridag Co. (12 marks)

(b) Calculate the equivalent annual costs of Machine 1 and Machine 2, and discuss which machine should be purchased. (6 marks)