

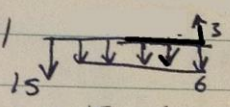
Example of service alternative with life shorter than the study period

Consider two alternatives A1 and A2 with the following cash flows.

Year	Cash Flow A1	Cash Flow A2
0	-15	-20
1	-6	-2
2	-6	-2
3	-6	-2
4	-6	--
5	-6+3	--

The MARR is 20%. The two alternatives are to be compared over a study period of five years. It is estimated that the cost of continuing service for A2 in Years 4 and 5 is 15.

Cash flows for A1

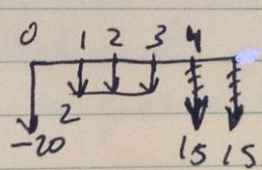


$$PW_{A1} = -15 - 6(P/A, 20\%, 5) + 3(P/F, 20\%, 5)$$

$$= -15 - \frac{6}{0.2} (1 - 1.2^{-5}) + 3(1.2^{-5})$$

$$= \$31.738K$$

For (A2)



$$PW_{A2} = -20 + 2(P/A, 20\%, 3) + 15(P/F, 20\%, 4) + 15(P/F, 20\%, 5)$$

$$= -20 - \frac{2}{0.2} (1 - 1.2^{-3}) - 15(1.2^{-4} + 1.2^{-5})$$

$$= \$37.475K$$

Choose A1