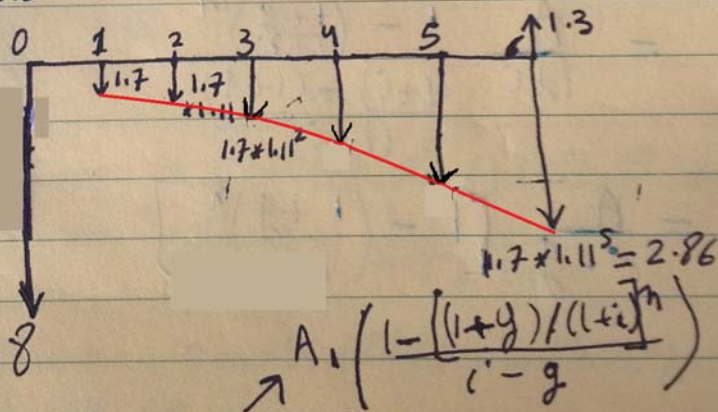


Engineers at Sea World, a division of Bush Gardens, have completed an innovation on an existing ride to make it more exciting. This costs \$8K, and is expected to last 6 years with a \$1.3K salvage value. The maintenance cost is \$1.7K the first year, increasing by 11%/year thereafter. Sea World discounting rate is 8%.

PV of total project :

Cash Flow diagram



$$\begin{aligned}
 PV &= -8 - 1.7 (P/A, 8\%, 6) + 1.3 (P/F, 8\%, 6) \\
 &= -8 - 1.7 \frac{1 - (1.11/1.08)^6}{0.08 - 0.11} + \frac{1.3}{1.08^6} \\
 &= -8 - 1.7 (5.955948) + 1.3 (0.630170) \\
 &= -\$17.306 \text{ K}
 \end{aligned}$$