



QUESTION $\left\{ \begin{array}{l} \text{WHAT TO DO AT } \boxed{4} ? \\ \text{WHAT TO DO AT } \boxed{1} ? \end{array} \right.$

USING THE EXPECTED VALUE CRITERION ONE CAN SAY THAT AT $\boxed{4}$ THE BEST ACTION IS THAT WHICH MAXIMIZES EXPECTED PROFIT.

$$E\{\text{profit} | \text{expand}\} = (9 \times 10^6 \times 0.75 + 2 \times 10^6 \times 0.25) \times 8 - 4.2 \times 10^7 = 1.6 \times 10^7$$

$$E\{\text{profit} | \text{do noth.}\} = (2.5 \times 10^6 \times 0.75 + 2 \times 10^6 \times 0.25) \times 8 - 0 = 1.9 \times 10^7$$

AT $\boxed{4}$ DO NOTHING.

NOW ONE CAN HAVE ONE LINK EMANATING FROM $\boxed{4}$ WITH A VALUE OF 1.9×10^7 REPRESENTING EXPECTED PROFIT OVER 8 YRS.

$$E\{\text{profit} | \text{BMP}\} = (1 \times 10^7 \times 0.75 + 3 \times 10^6 \times 0.25) \times 10 - 5 \times 10^7 = 3.25 \times 10^7$$

$$E\{\text{profit} | \text{SMP}\} = (1.9 \times 10^7 + 2.5 \times 10^6 \times 2) \times 0.75 + 2 \times 10^6 \times 0.25 \times 10 - 1 \times 10^7 = 1.3 \times 10^7$$

AT $\boxed{1}$ BUILD BMP