



	A	B	C	D
A	-	70	75	125
B		-	25	75
C			-	70
D				-

$$w_1 = 2 \quad w_2 = 5 \quad w_3 = 10 \quad w_4 = 40$$

$$A \rightarrow B: 20 + 10 + 40 = 70 \quad A \rightarrow C: 20 + 5 + 10 + 40 = 75$$

$$A \rightarrow D: 20 + 5 + 2 \cdot 10 + 2 \cdot 40 = 125 \quad B \rightarrow C: 20 + 5 = 25$$

$$B \rightarrow D: 20 + 5 + 10 + 40 = 75 \quad C \rightarrow D: 20 + 10 + 40 = 70$$

1) ④ 300

2) ③ $\xrightarrow{0.3}{70}$ ④ 271 = $250 + 0.3 \cdot 70$

3) ② $\xrightarrow{0.4}{75}$ ④ 280 = $250 + 0.4 \cdot 75$

4) ② $\xrightarrow{0.4}{25}$ ③ $\xrightarrow{0.12}{70}$ ④ 268,4 = $250 + 0.4 \cdot 25 + 0.12 \cdot 70$

5) ① $\xrightarrow{0.4}{125}$ ④ 262,6 = $200 + 0.4 \cdot 125 + 0.18 \cdot 70$

① $\xrightarrow{0.18}{70}$ ②

6) ① $\xrightarrow{0.4}{75}$ ③ $\xrightarrow{0.12}{70}$ ④ 251 = $200 + 0.4 \cdot 75 + 0.12 \cdot 70 + 0.18 \cdot 70$

① $\xrightarrow{0.18}{70}$ ②

7) ③ $\xrightarrow{0.6}{15}$ ② 267,4 = $250 + 0.6 \cdot 15 + 0.12 \cdot 70$

③ $\xrightarrow{0.12}{70}$ ④

answer: The optimal policy is policy 6 (lowest cost).