

2.1

2.19

A_1	-3	-21	-7
A_2	-5	0	0
A_3	0	-26	-12

The minimax regret act is A_2 .

2.20

A_1	0	0	-4
A_2	-8	-12	0
A_3	-1	-15	-1

The minimax regret act is A_1 .

2.2

Decision table

A_1	6	5	8
A_2	5	5	8
A_3	10	10	0

Regret table

A_1	-4	-5	0
A_2	-5	-5	0
A_3	0	0	-8

A_1 dominates A_2 , but the minimax regret rule evaluates them as equivalent, because they both get their maximum regret from A_3 .

2.3

A_1	10	100	150
A_2	10	12	150

A_1 dominates A_2 , but since the Optimism-Pessimism rule only looks at the best and worst case, it evaluates them as equivalent.

2.4

Decision table

				EMV
A_1	1	15	15	$31/3$
A_2	5	12	15	$32/3$

Transformed table

We transform by mapping $1 \rightarrow 4$, and all other numbers to themselves.

				EMV
A_1	4	15	15	$34/3$
A_2	5	12	15	$32/3$

2.5

In the decision table, we calculate the Regret R , which is $u - Max$ for each u in the table, where Max is the maximum value in each column.

We transform by $a * u + b, a \geq 0$.

Then the Maximum for each column will be $a * Max + b$.

The new regret R' will be $(a * u + b) - (a * Max + b) = a * (u - Max) = a * R$.
QED.