Description:

John visits a painter to buy a specific painting. The cost of painting is 200$ if its available in the shop. But if painting is not available then John needs to order a new one to be painted that will cost him 100$ extra. At any time only one copy of painting is available and another one to be ordered once sold.

Representation:

Fluents: available, sold.

Actions: BUY, ORDER.

BUY costs 200$ **if** available

BUY costs 300$ **after** ORDER

MIN COST:0$;

MAX COST: 300$

Always ORDER🡪available

Always BUY🡪sold

initially: ¬available ^ ¬sold

BUY causes sold if available

ORDER causes available if ¬available

¬available after BUY

CALCULATION:

∑= {σ0, σ1, σ2, σ3}

σ0 = {¬available, ¬sold}

σ1 = {¬available, sold}

σ2 = {available, ¬sold}

σ3 = {available, sold}

(BUY, σ0) = σ0

(ORDER, σ0) = σ1

(BUY, σ1) = σ2

(ORDER, σ1) = σ1

(BUY, σ2) = σ2

(ORDER, σ2) = σ1

(BUY, σ3) = σ2

(ORDER, σ3) = σ3

GRAPH:

