Preconditions:

PnL = Profit/Loss

Total amount invested/deposits: 5000 USD

Cash only updates when there is a transaction (buy/sell)

Operations

1st January: Buy 1000 shares product A \* 2 USD

1th April: Price A = 3 USD (no sell)

Buy 500 shares product B \* 3 USD

Product A PnL = (3-2) \* 1000 = 1000 USD

Product B PnL = 0

Total PnL = 1000 + 0 = 1000

Total Amount = 5000 + 1000

Percentage PnL = (1000/5000) \* 100 = 20%

1st July: Price A = 2.5 USD (with sell) 🡪 profit is settled

Price B = 2.75 USD (no sell)

Product A PnL = (2.5-2) \* 1000 = 500 USD

Product B PnL = (2.75-3) \* 500 = -125 USD

Total PnL = 500 - 125 = 375

Total Amount = 5000 + 375

Percentage PnL = (375/5000) \* 100 = %

1st September:

Price B = 2.25 USD (no sell)

Buy 1000 more shares product B \* 2.25 USD

Product A PnL = unchanged (no position)

Product B PnL = (2.25-3) \* 500 + (2.25-2.25) \* 1000 = -375 USD

Total PnL = 500 - 375 = 125

Total Amount = 5000 + 125

Percentage PnL = (375/5000) \* 100 = %

31st December:

Price B = 2.5 USD (with sell) 🡪 profit is settled

Product A PnL = unchanged (no position)

Product B PnL = (2.5-3) \* 500 + (2.5-2.25) \* 1000 = 0 USD

Total PnL = 500 - 0 = 500

Total Amount = 5000 + 500

Percentage PnL = (500/5000) \* 100 = 10%