

# Contest

Tradingene

May 2018

Bunny has monitored the price of an asset for the last 1000 time moments and obtained the following graph:

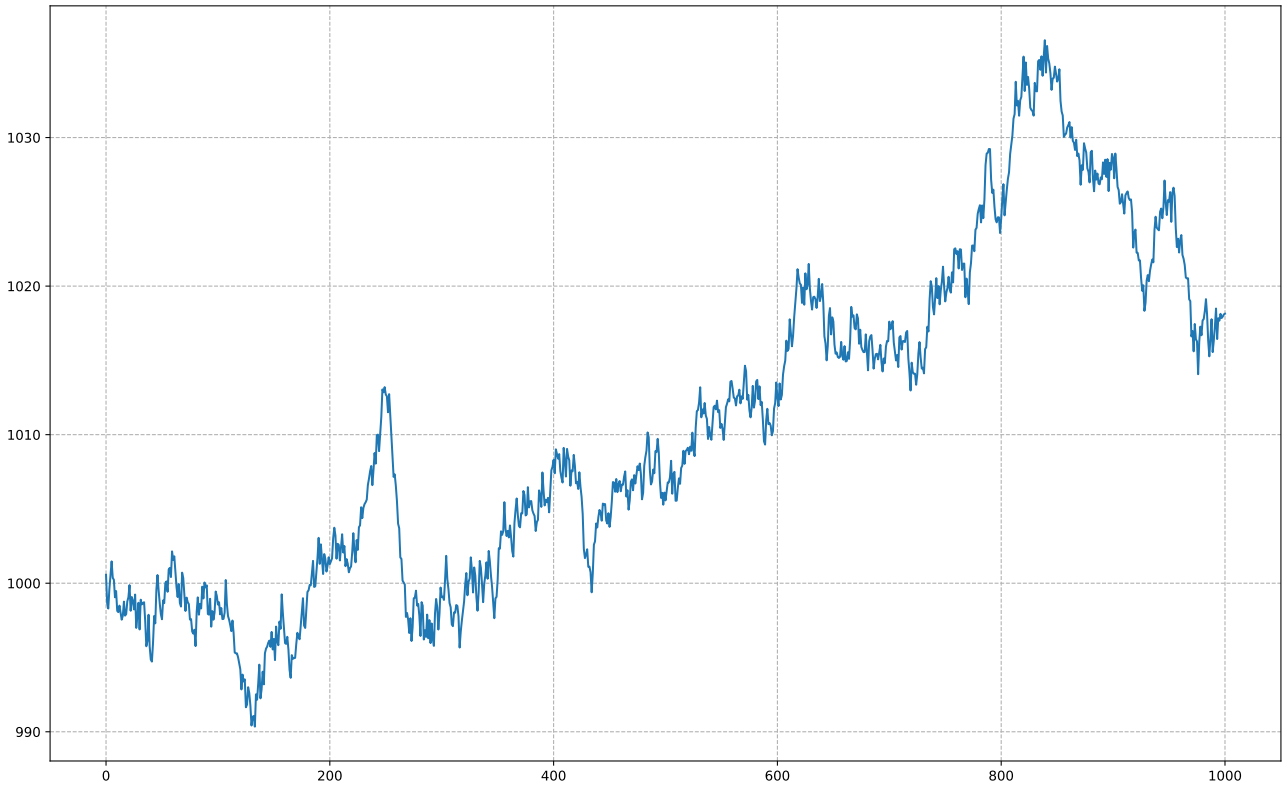


Figure 1: Price graph of an asset

He instructs you to open a position at  $t = 1000$  at price  $P_{1000} = 1018.14$ . You must maximize the return  $r = \text{side} * (P_t - P_{1000})$  by closing the position at price  $P_t, t > 1000$ , where

$$\text{side} = \begin{cases} 1, & \text{if the position was long,} \\ -1, & \text{if the position was short.} \end{cases}$$

If at  $t = 1100$  the position is still open, Bunny will demand you close it despite the return.

Estimate the return Bunny can obtain under these conditions.