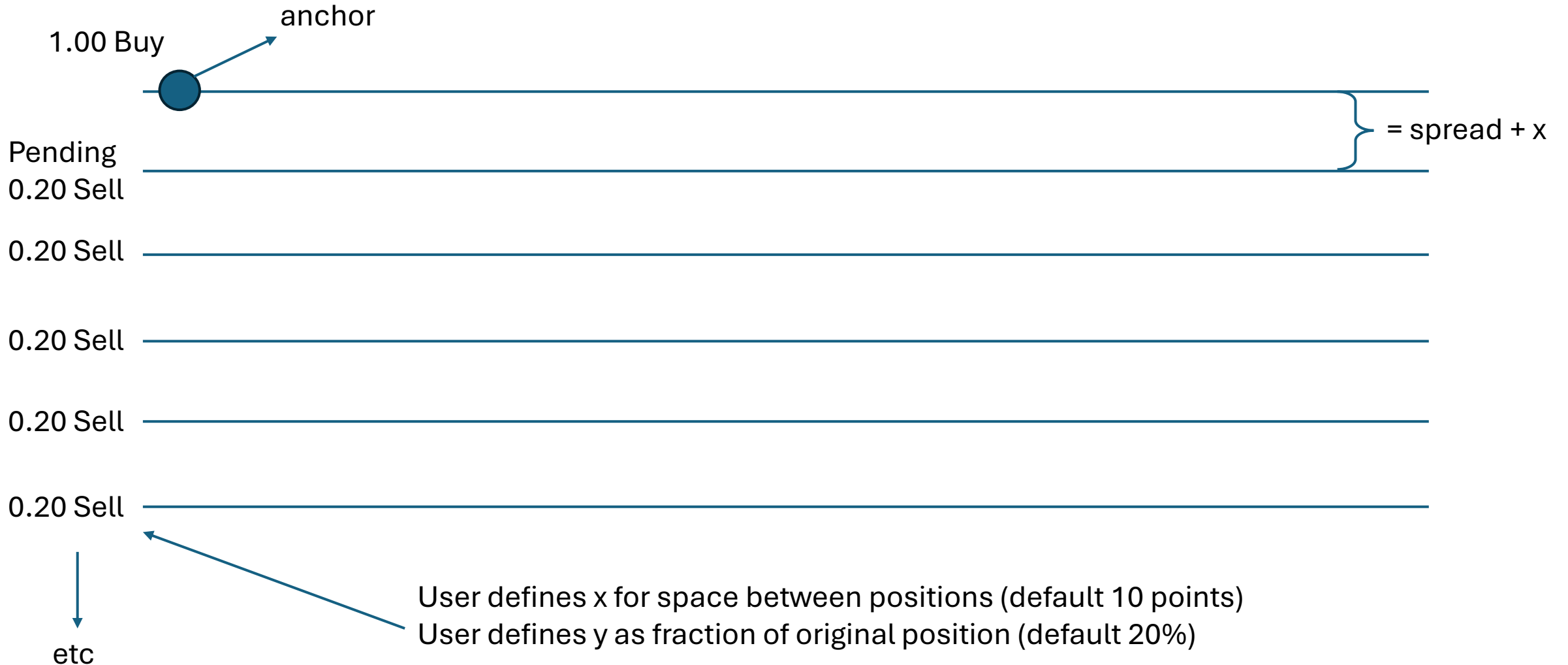


Nanobot Intro

- I would like to create an EA that, after opening of a first position, builds a system of opposite positions (as a grid) when the market goes in the wrong direction. The EA however also closes these opposite positions when the market goes back the right way, reducing the initial loss-making position piece by piece where possible.
- In this system we will use pending orders to build our opposite positions. We ensure that there is never more than a small volume of open opposite positions open in the event the market again goes in right direction, so that we always can close the overall trade system (more lots on the winning side than on the losing side).
- The EA is not a true grid or martingale, as it will always maintain a SL on the overall trade system.
- Some terms:
 - The initial position, whether a BUY or a SELL = the Anchor.
 - A position placed in the opposite direction to the Anchor: Opposite Position.
 - Anchor plus any other open and pending opposite positions = the Trade System / the System

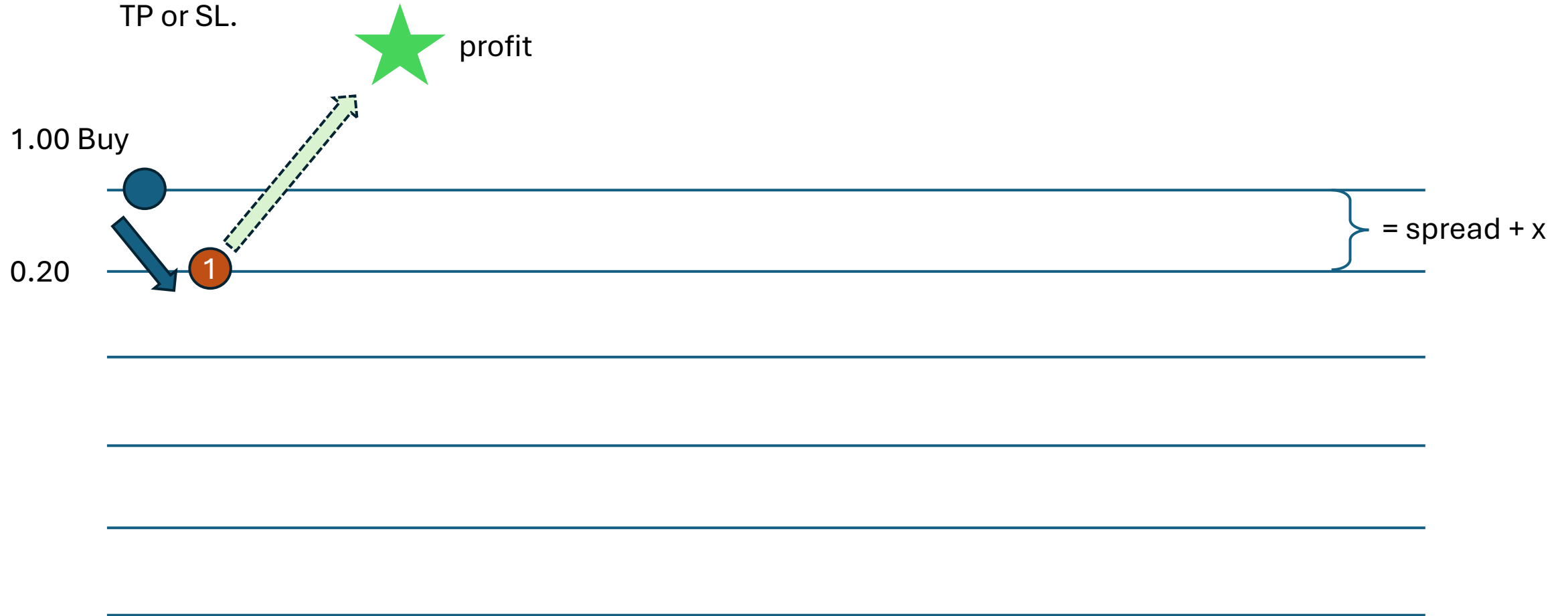
Opening

When the initial (anchor) position is opened, many pending orders are created in the opposite direction (say, 30), each spaced by a distance of (spread + x).



Pending Orders

If price falls it will open the opposite pending order, however the order is small enough that if the market goes again the right way, we still make profit. This pending order is opened without TP or SL.



User defines x for space between positions (default 10 points)

User defines y as fraction of original position (default 20%)

Pending Orders

The 2nd pending order is opened without TP or SL. If the market here turns to go in the right direction, we can still earn a decent profit as the buy volume is still much higher than the sells.



User defines x for space between positions (default 10 points)

User defines y as fraction of original position (default 20%)

Pending Orders

When the 3rd pending order is opened, a SL for all of the sells is placed at the level of the 2nd furthest position. At this time, whenever a new pending order is opened, all open sells have their SL's unified on the 2nd furthest level from the anchor.

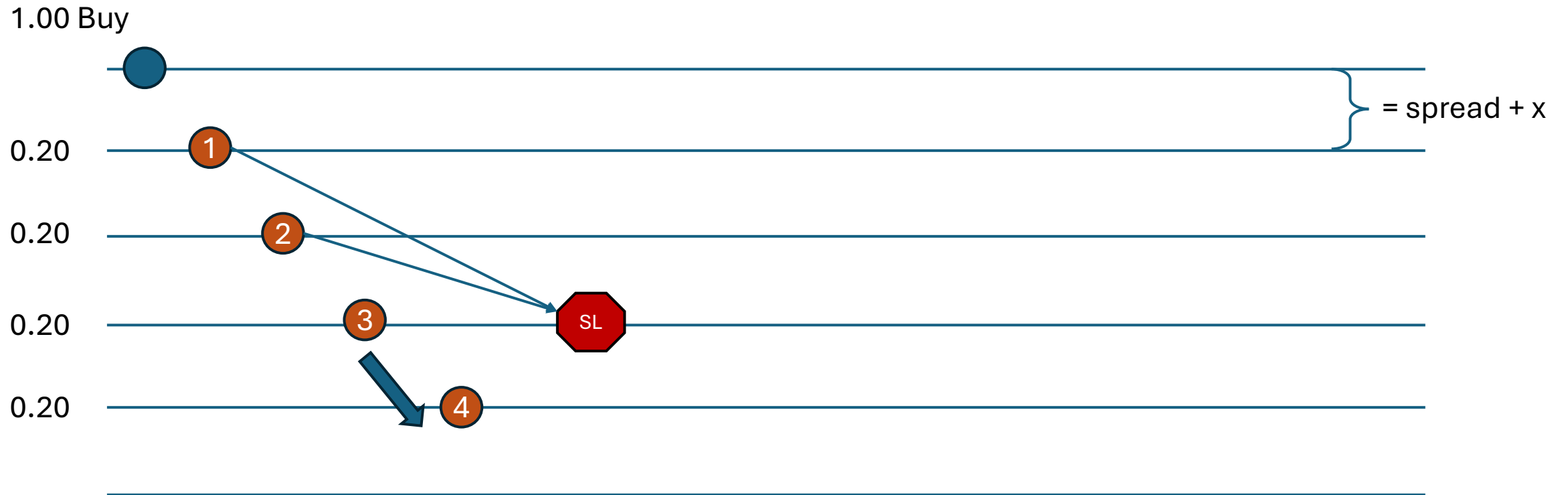


User defines x for space between positions (default 10 points)

User defines y as fraction of original position (default 20%)

Pending Orders

Whenever a new pending order is opened, and there are more than two opposite orders already open, all open opposite orders have their SL's unified on the 2nd furthest level from the anchor.

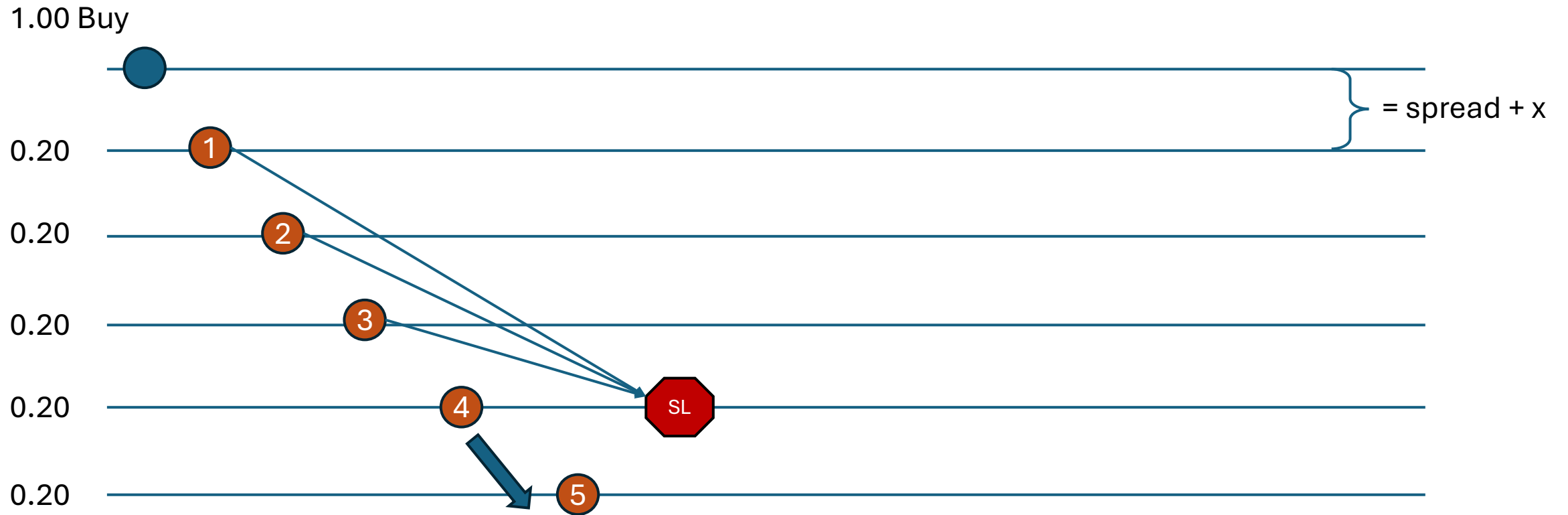


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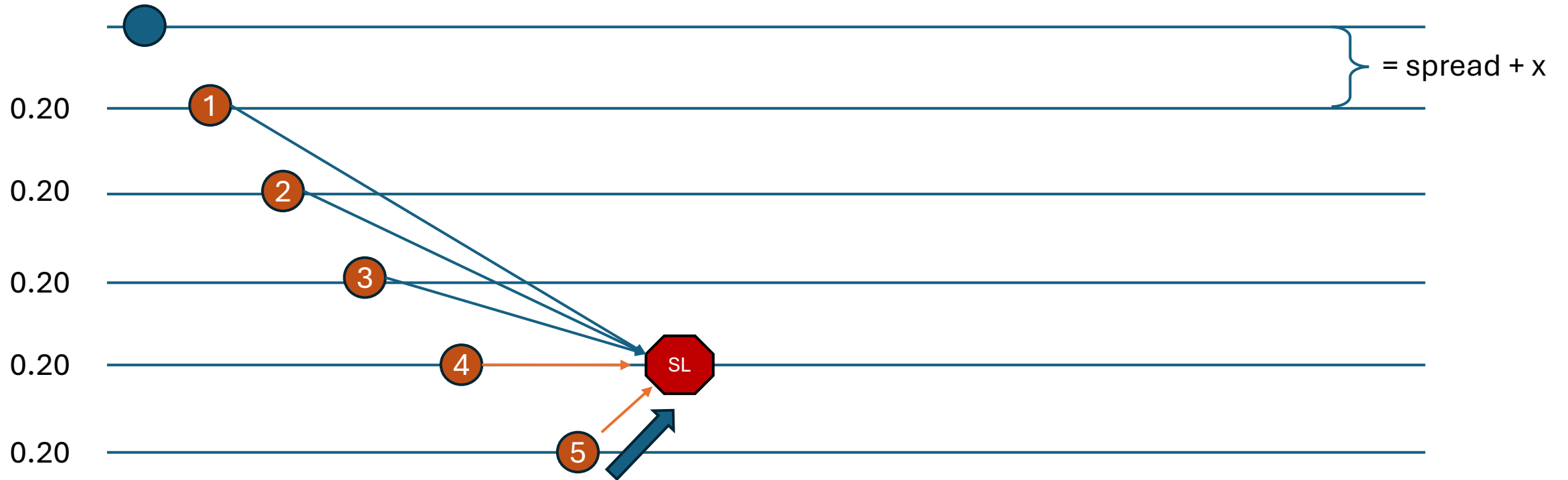
User defines y as fraction of original position (default 20%)

Pending Orders

Once the SL is hit and the positions closed:

- 1) The EA will add this profit to an internal tally
- 2) The EA will close all of the open opposite orders. It will tally the results internally.
- 3) Using only the profit indicated in the tally, the EA will close as much of the original position as possible.
- 4) The EA will erase all remaining pending orders, and reset them according to the new value of the buy x the fraction amount.

1.00 Buy



User defines x for space between positions (default 10 points)

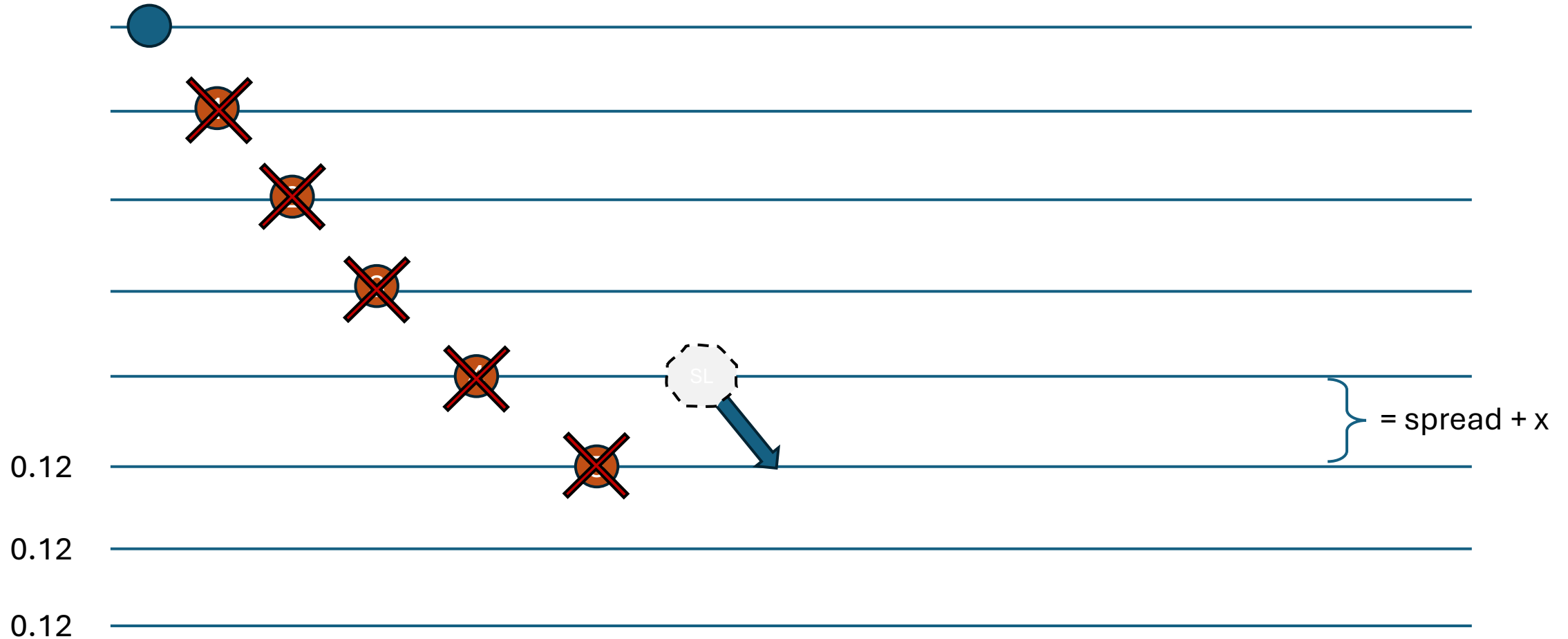
User defines y as fraction of original position (default 20%)

Pending Reset

Example: the positions are all closed, leaving enough profit to close 0.40 of the Buy:

- The Buy is reduced to 0.60 via partial close.
- The pending orders are reset at a distance of spread + x from the current price.
- New pending orders have a lot size of $0.60 \times 20\% = 0.12$

0.60 Buy

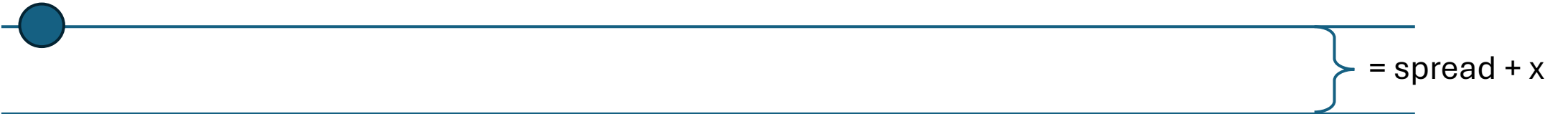


Pending Flexibility

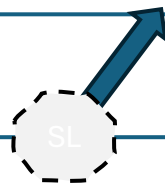
Pending order flexibility: if at this time price continues to move in the right direction and there are NO open sell orders, new pending orders are filled in behind the price movement.

As soon as one of the pending orders is activated, backfilling stops.

0.60 Buy



0.12 added



0.12

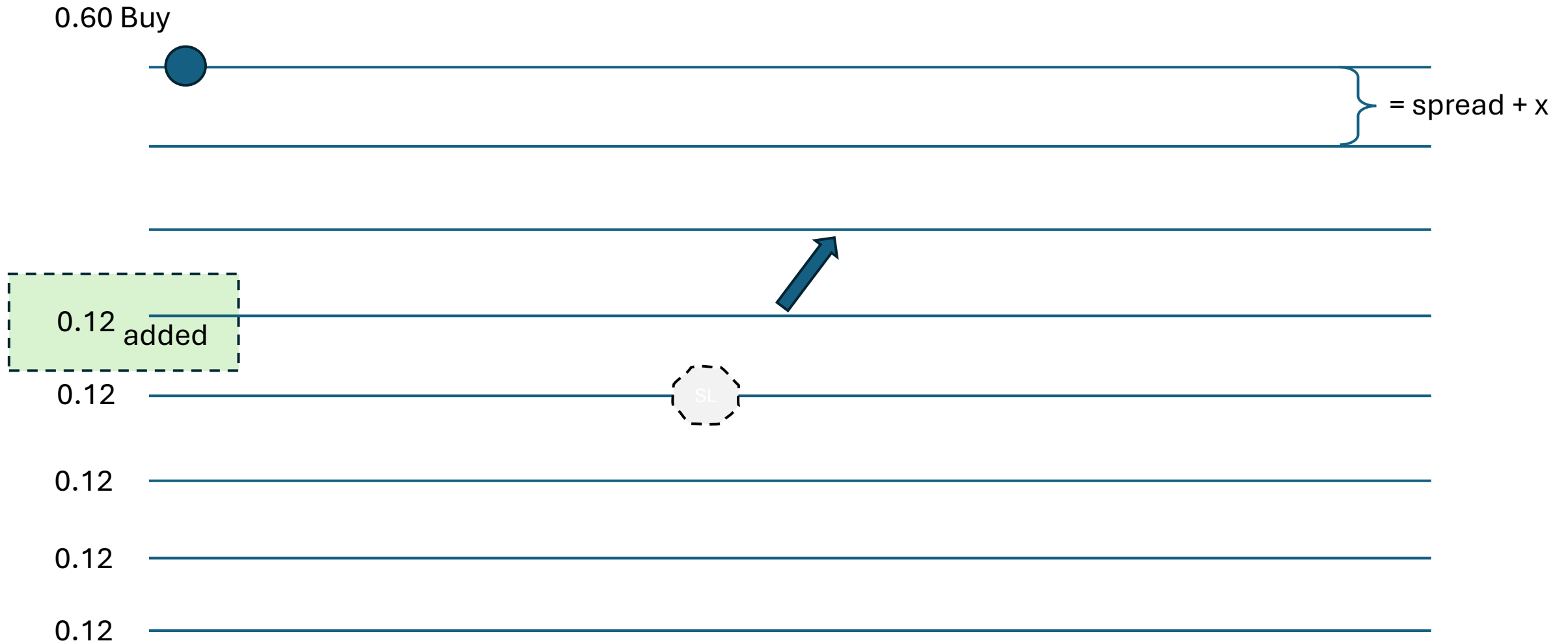
0.12

0.12

Pending Flexibility

Pending order flexibility: if at this time price continues to move in the right direction and there are NO open sell orders, new pending orders are filled in behind the price movement.

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Pending Flexibility

Pending order flexibility: if at this time price continues to move in the right direction and there are NO open sell orders, new pending orders are filled in behind the price movement.

As soon as one of the pending orders is activated, backfilling stops.

0.60 Buy



} = spread + x

0.12 triggered



0.12

0.12

0.12

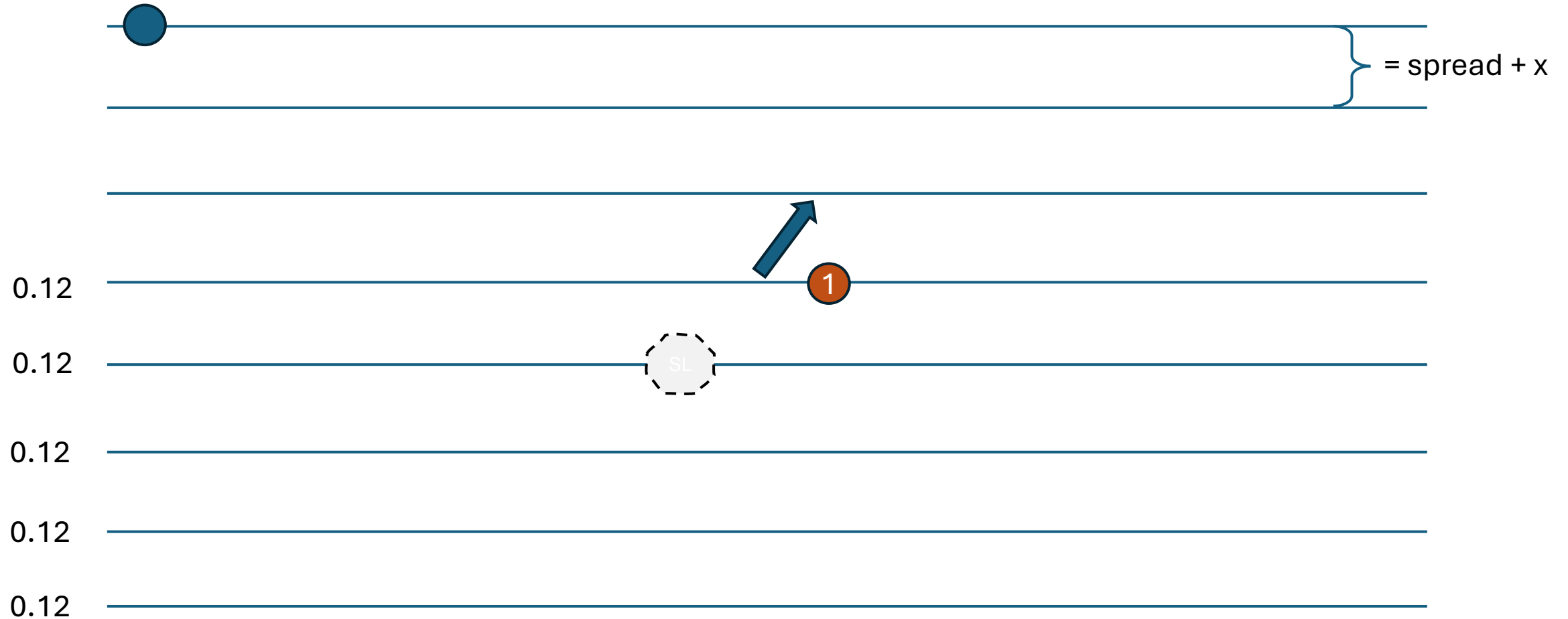
0.12

Pending Flexibility

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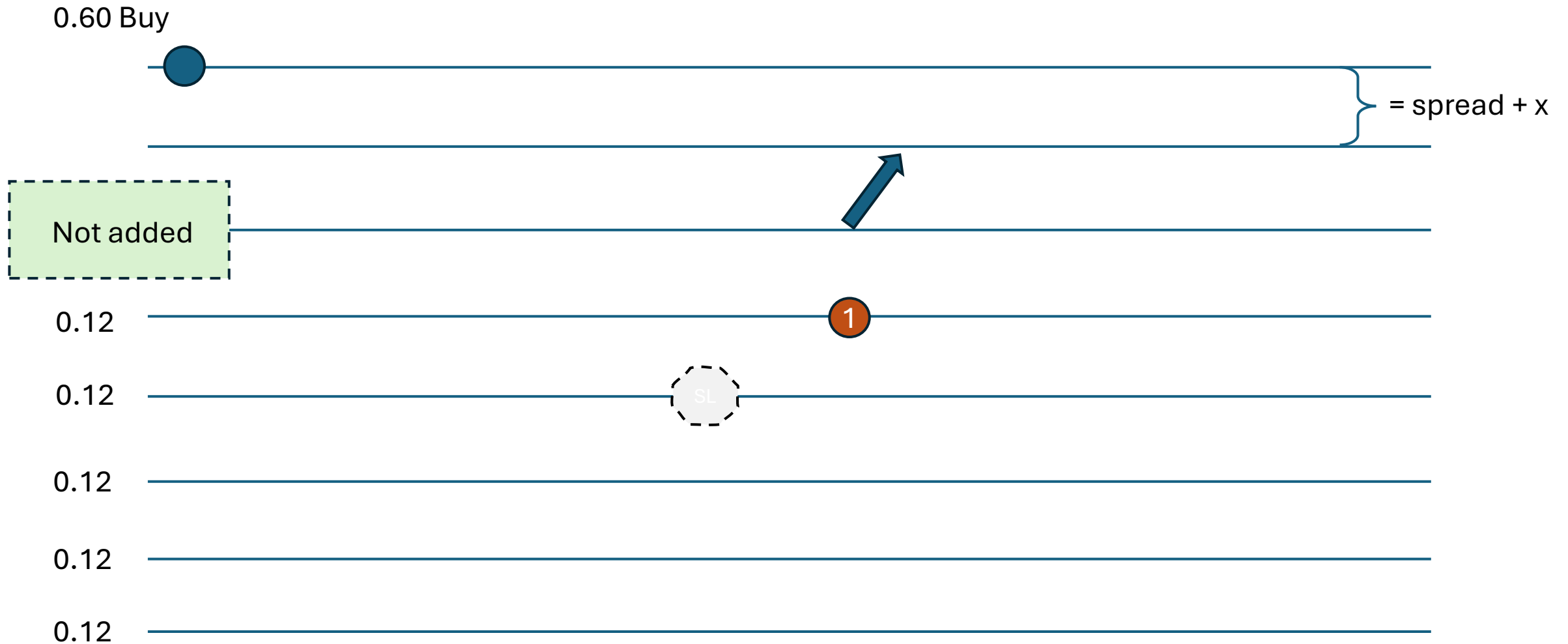
0.60 Buy



Pending Flexibility

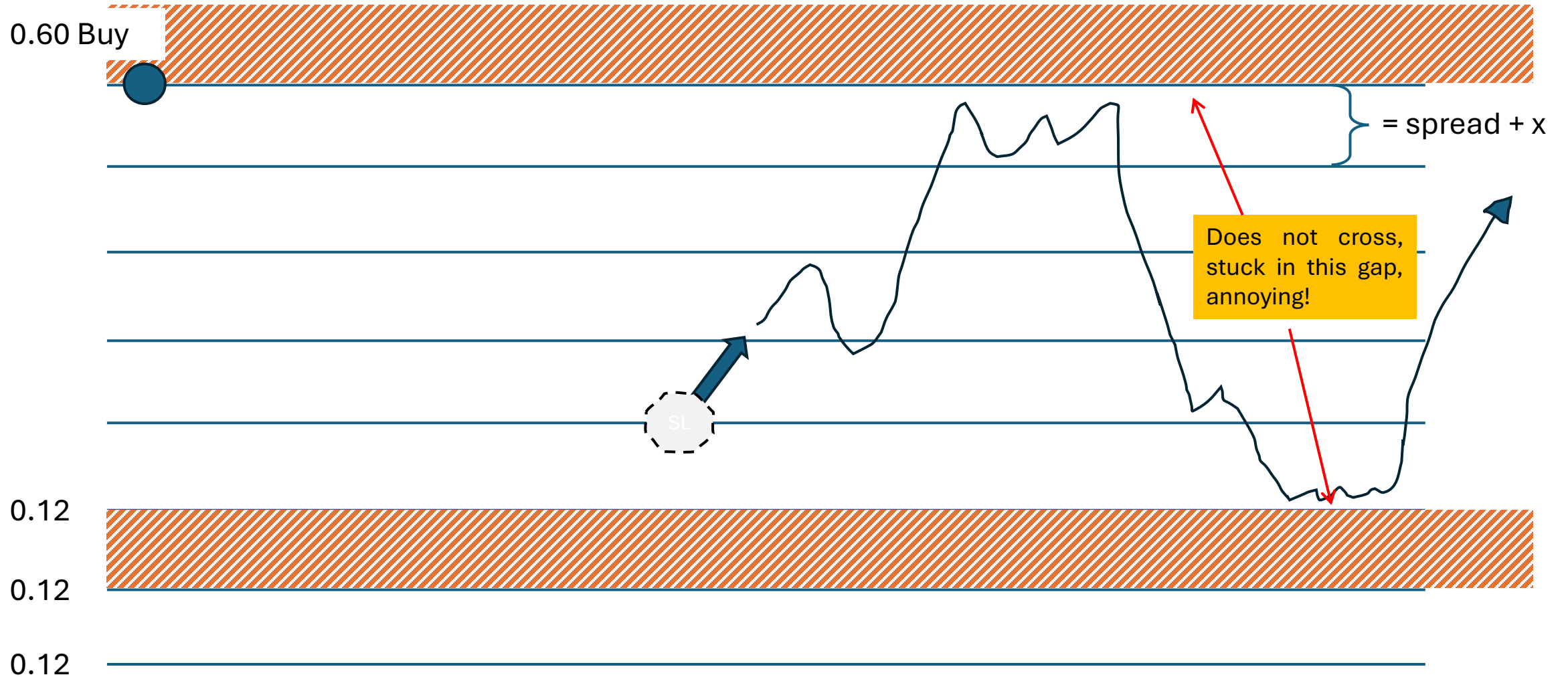
Pending order flexibility: if at this time price continues to move in the right direction and there are NO open sell orders, new pending orders are filled in behind the price movement.

As soon as one of the pending orders is activated, backfilling stops.



Ranging

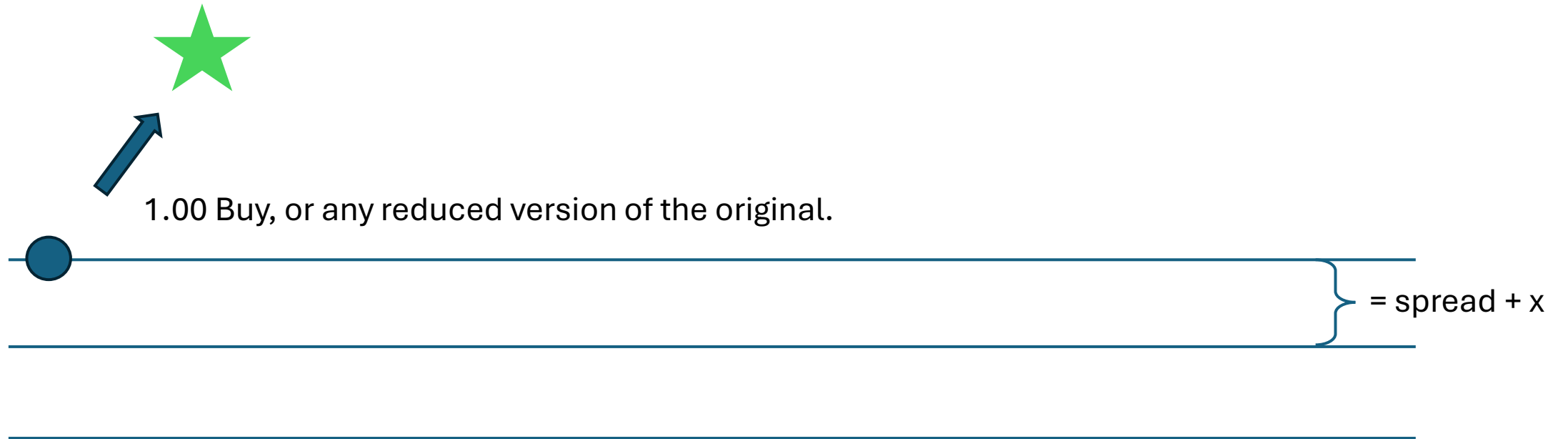
Without flexibility in the pending orders, we can run the risk of creating an empty gap between the anchor and the SL & other pending orders which could be subject to a ranging market. This can block us for a long period of time.



Closing with Original Position

For the sake of simplicity, if there are no pending orders open the original position (or its reduced version) will close according to a simple set of conditions:

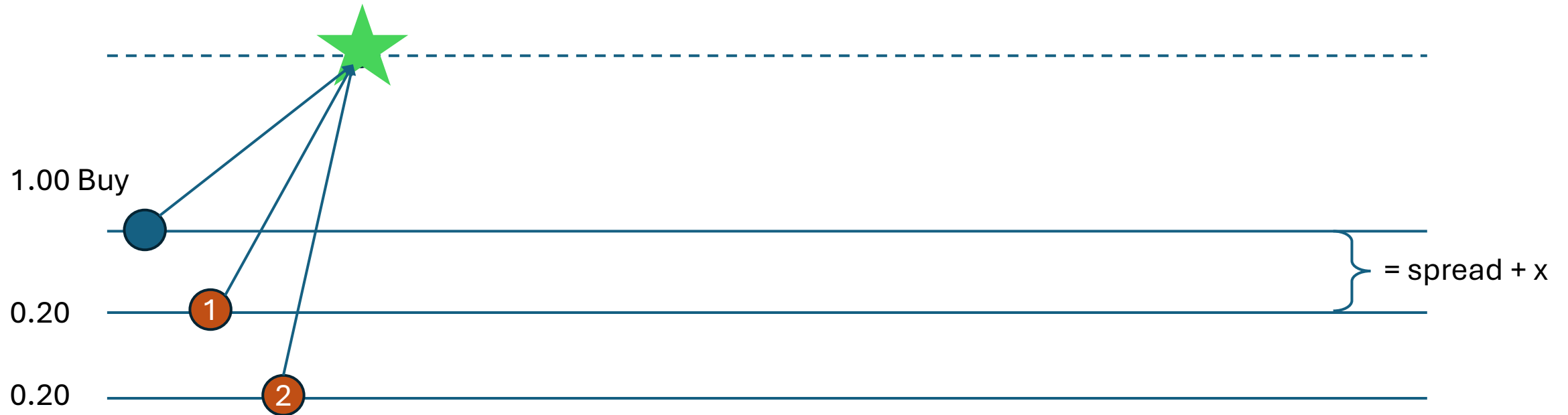
- 1) TP points
- 2) TP ATR



Closing with Pending Orders (Compound Profit)

When there are activated pending orders in the opposite direction, it is considered to be a grid. The entire grid system will close when the ROI balance of the positions ((profitable – abs(loss)) / abs(loss)) is above some amount defined by the user. For example, 25%.

Take the three positions below as example. Assume that the values are: 70, -20, -35. The ROI calculation would be $(70 - 55) / 55 = 27\%$, therefore we can conclude that this is $>25\%$ and all three positions should be closed. Note that any swap costs must be included.



Ranging

Without flexibility in the pending orders, we can run the risk of creating an empty gap between the anchor and the SL which could be subject to a ranging market. This can block us for a long period of time.

0.60 Buy

