

Understanding how options work and basics of when to buy/sell call and put options

Kiran Muthigi

Domain: Options Trading

Topic: Understanding how options work and basics of when to buy/sell call and put options

Expert: Kiran Muthigi. I have been trading/investing at the stock market for 4 years now and moved to options trading in 2019 (managed a small amount of capital before coming to Columbia and generated a decent return).

User: Nandini Agrawal is a 22 year old MS CS student at Columbia. She is also taking Algorithmic trading this semester. A lot independent traders and big firms use options and the trend of using options by the retail community has been growing a lot recently. It didn't make sense to her that calls for Facebook had twice as many buyers as sellers, yet, its price was decreasing rapidly. As a stock market enthusiast and as someone in online stock market communities, she often finds herself lost when people around her talk about options. She would love to understand its basics so that she can understand the conversation about options in these communities and hopefully, take trades in future.

Media: We will use sample stock charts divided into two parts: historical performance and predicted performance. There will be images, animations and a small amount of text in each lesson.

Quiz: After each lesson, we will generate random graphs and quiz users on what option strategy they will be implementing here. We will only cover basics, that is, buying call option, selling call option, buying put option, selling put option. The idea is not to teach them everything at once, but do so iteratively. In the end, there will be a 1-minute rapid fire round and the user's score will be entered into a leaderboard!

Positive piece of feedback: It is a cool topic with not many experts

Cautionary piece of feedback: Try not to info-dump or regurgitate facts. Focus on a specific subset of information.

Intro to Options Trading

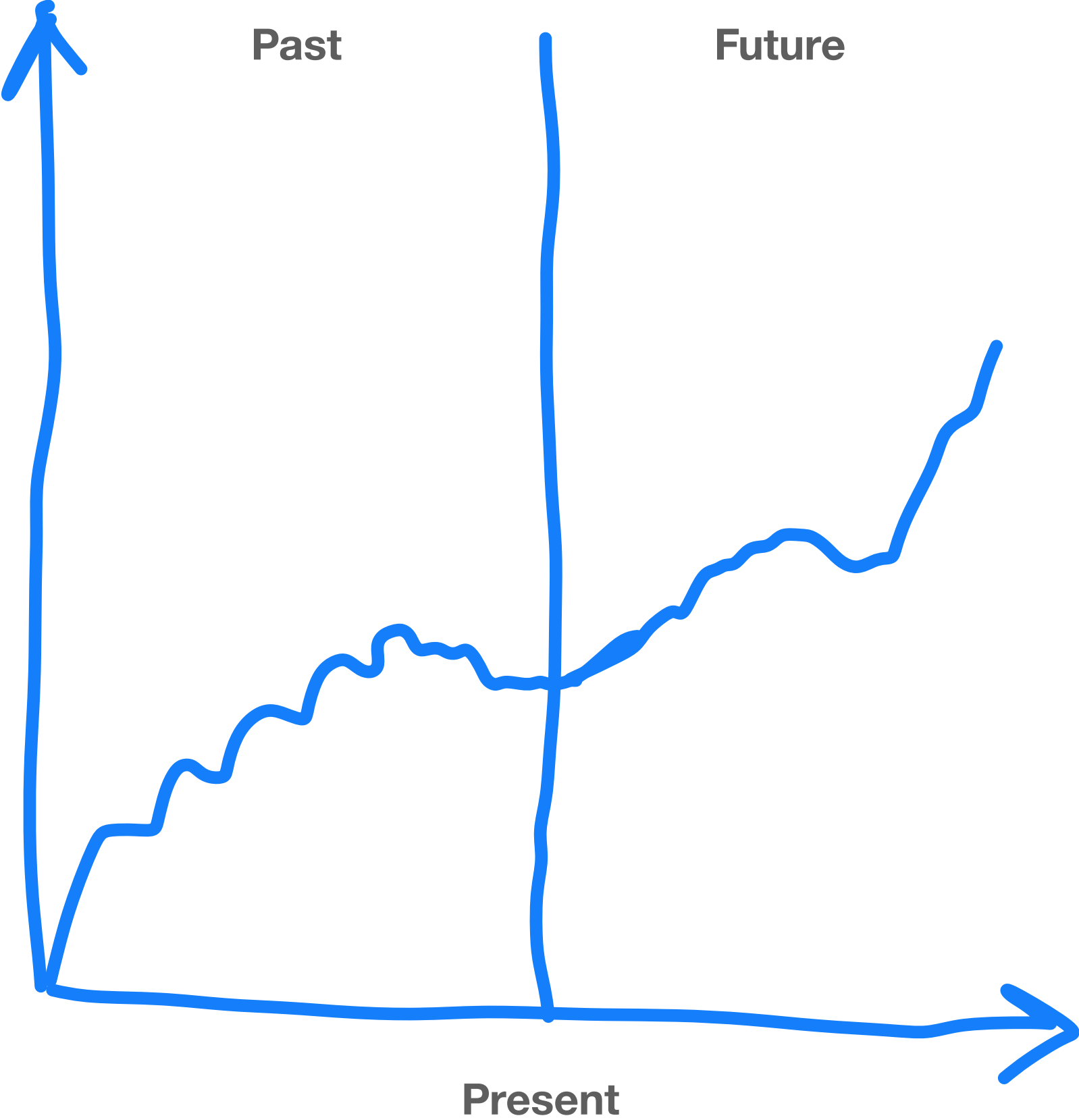
Let's Start!

Leaderboard

Buying Options!

You buy an option when you believe its value is going to up in the future.



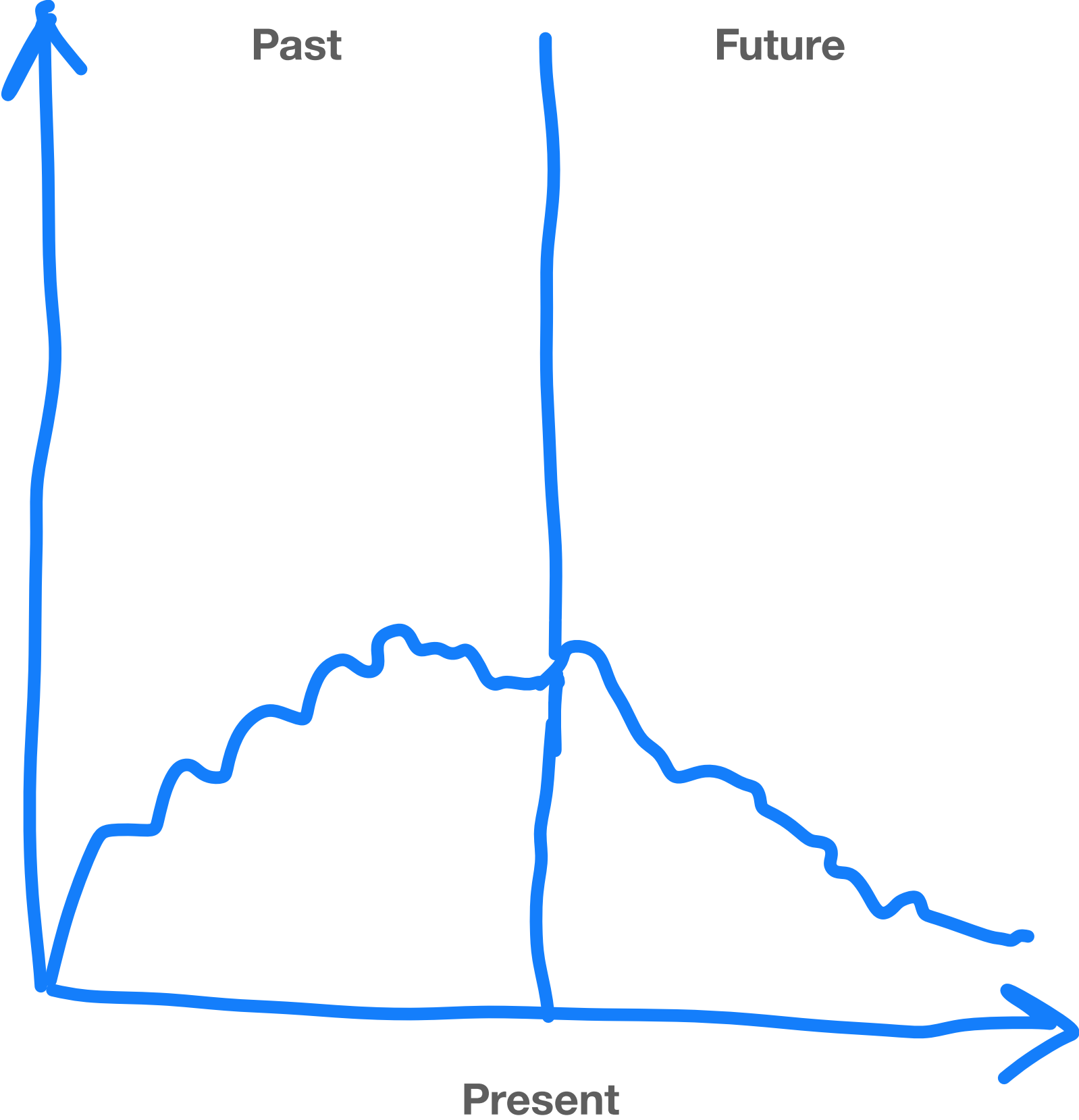


Will you be buying this stock?

- ☐ Yes
- ☐ No

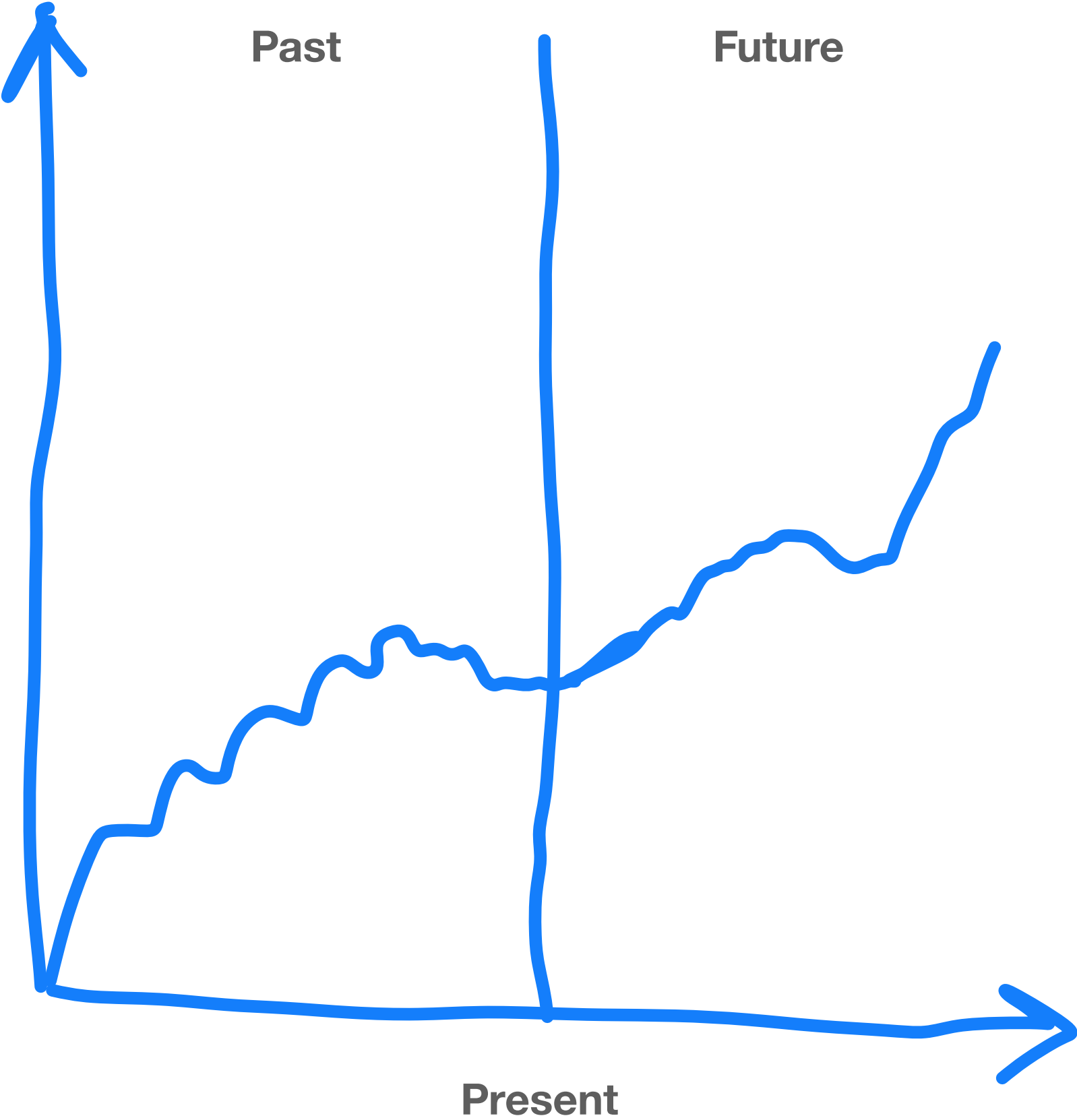
Call options





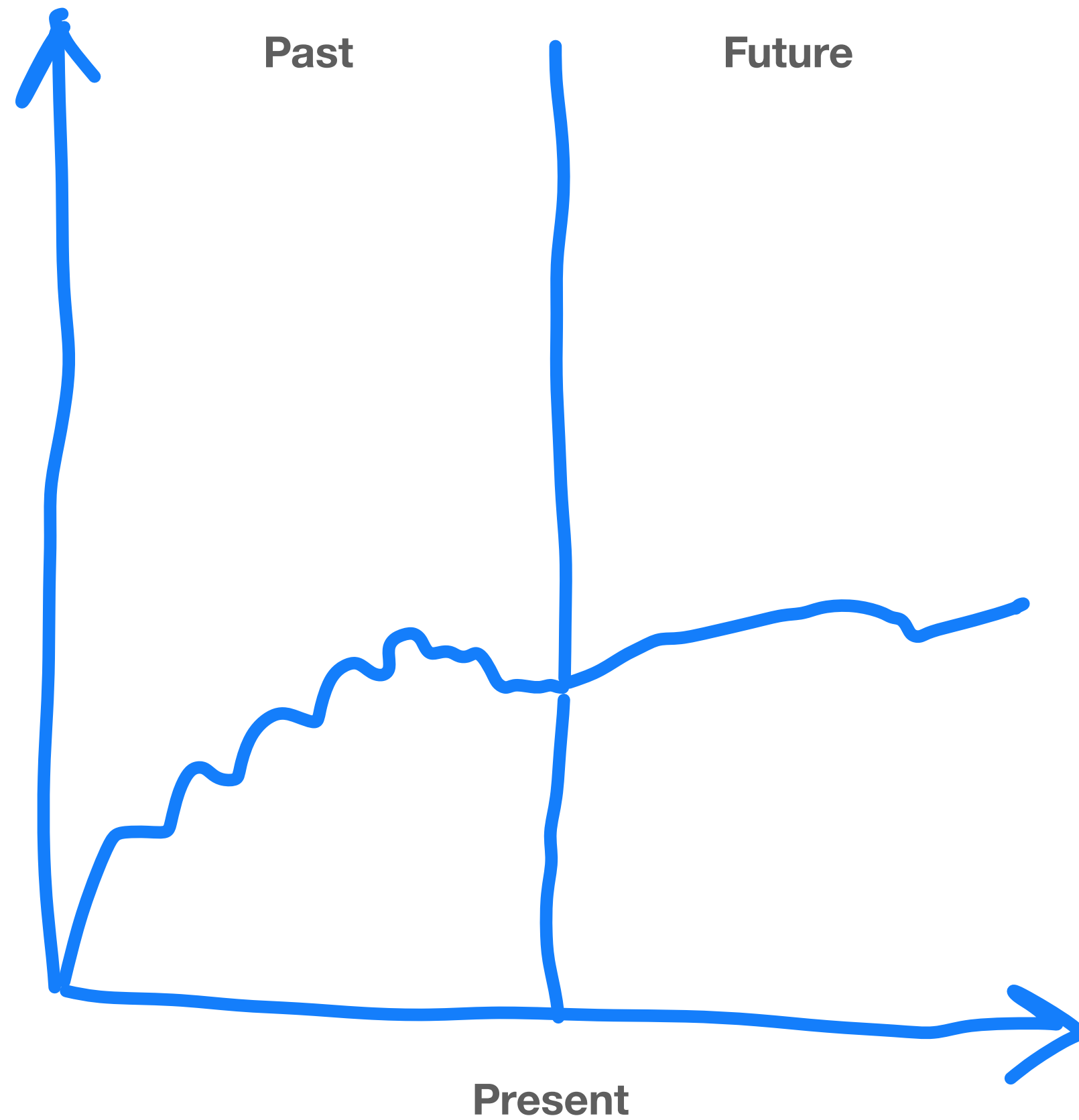
Will you be buying call option for this stock?

- ☒ Yes
- ☐ No



Will you be buying call option for this stock?

- ☒ Yes
- ☐ No



Will you be buying call option for this stock?

- ☒ Yes
- ☐ Probably not
- ☐ Calls should not be even considered for a pattern like this

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Put options

American
Call Option: Price - **\$5**
* Strike - **\$60**
Exp. - 1 month from now


Short:
Borrow → Sell: **\$50**
Buy stock: → give back

American put options

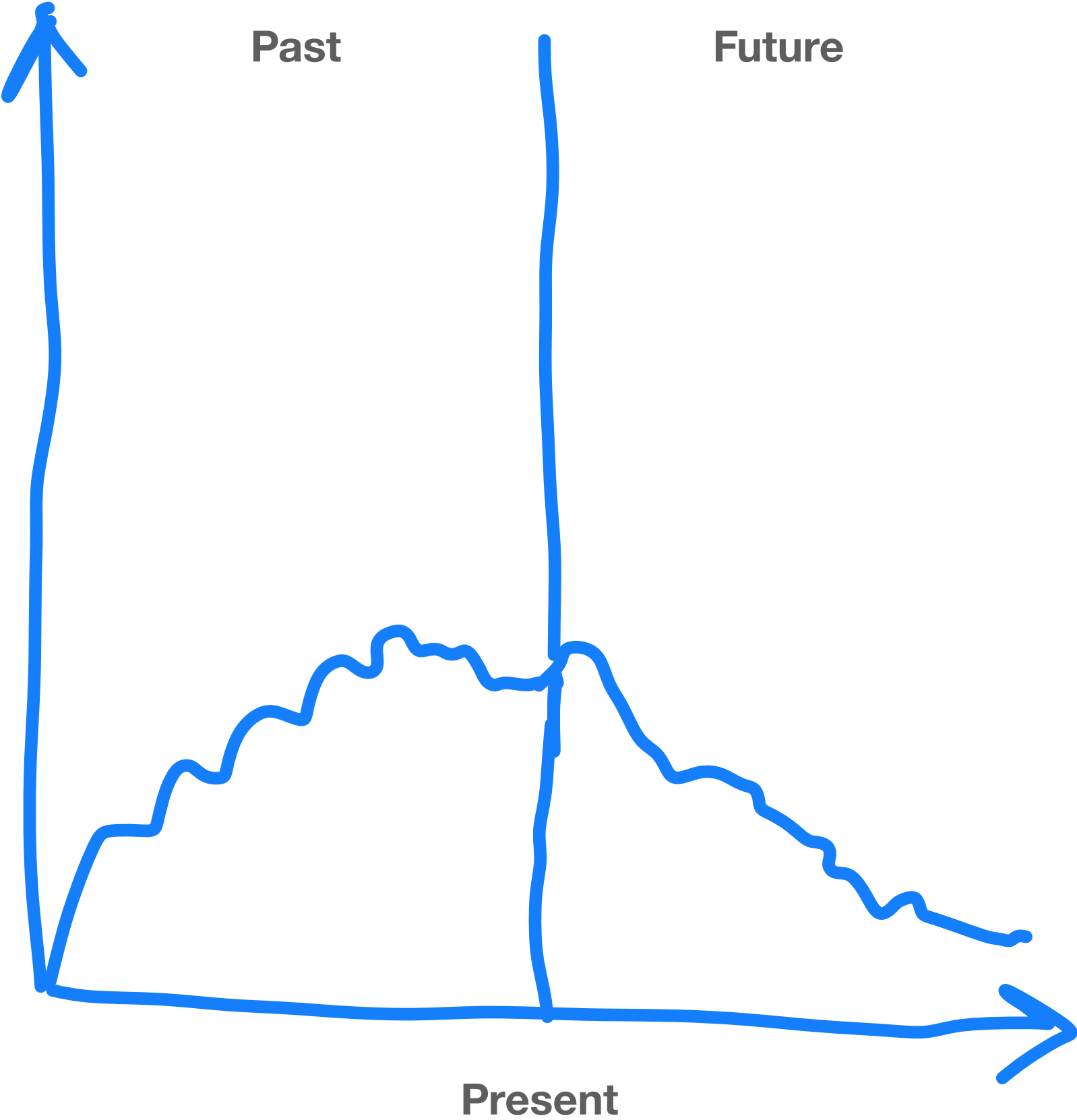
Today Date 1 month later

American
Put Option: Price - **\$5**
* Strike - **\$40**
Exp. - 1 month from today

Position	Call Option	Short
Payoff	\$15	-\$30
Net		\$30

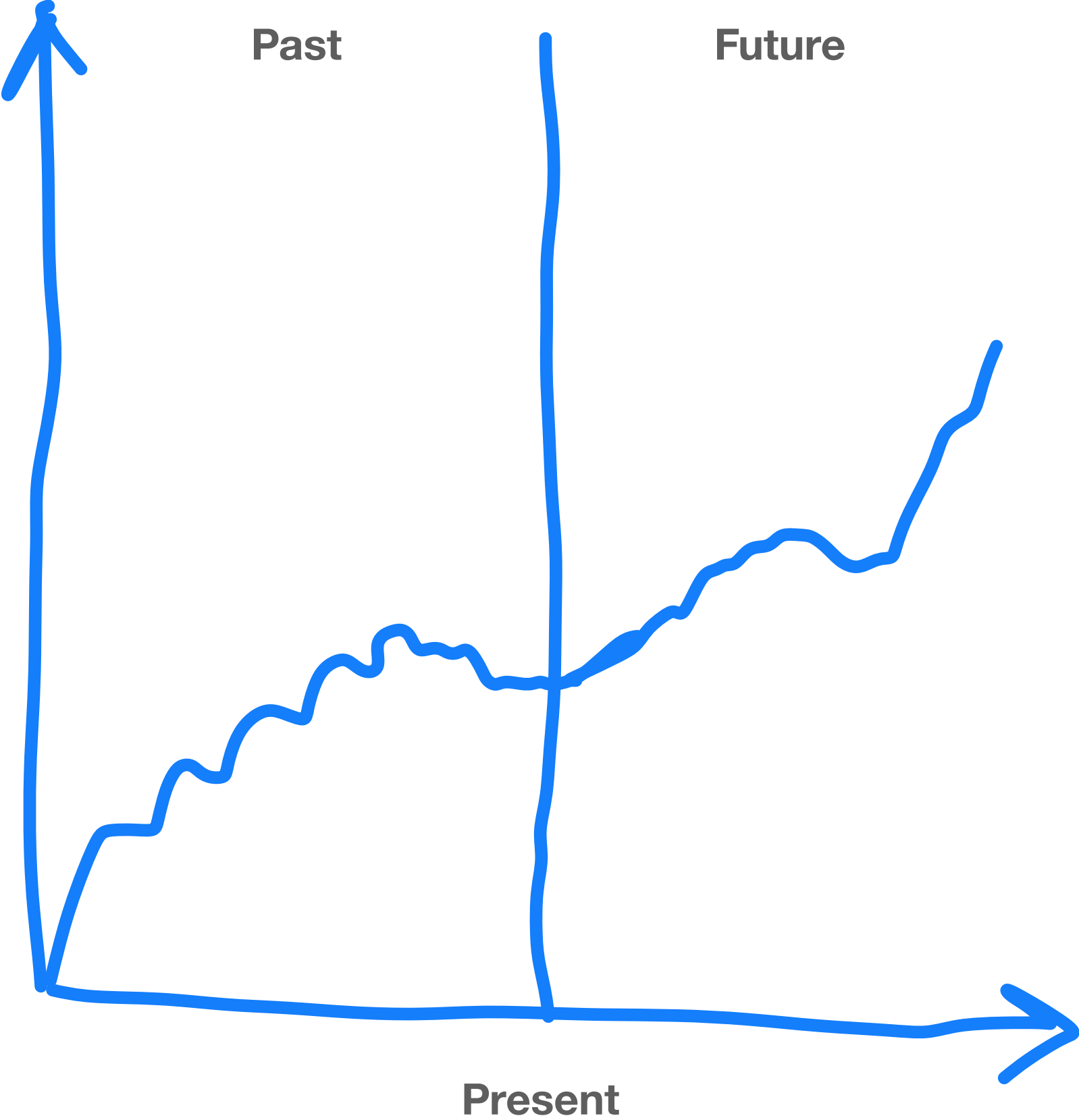


Khan Academy



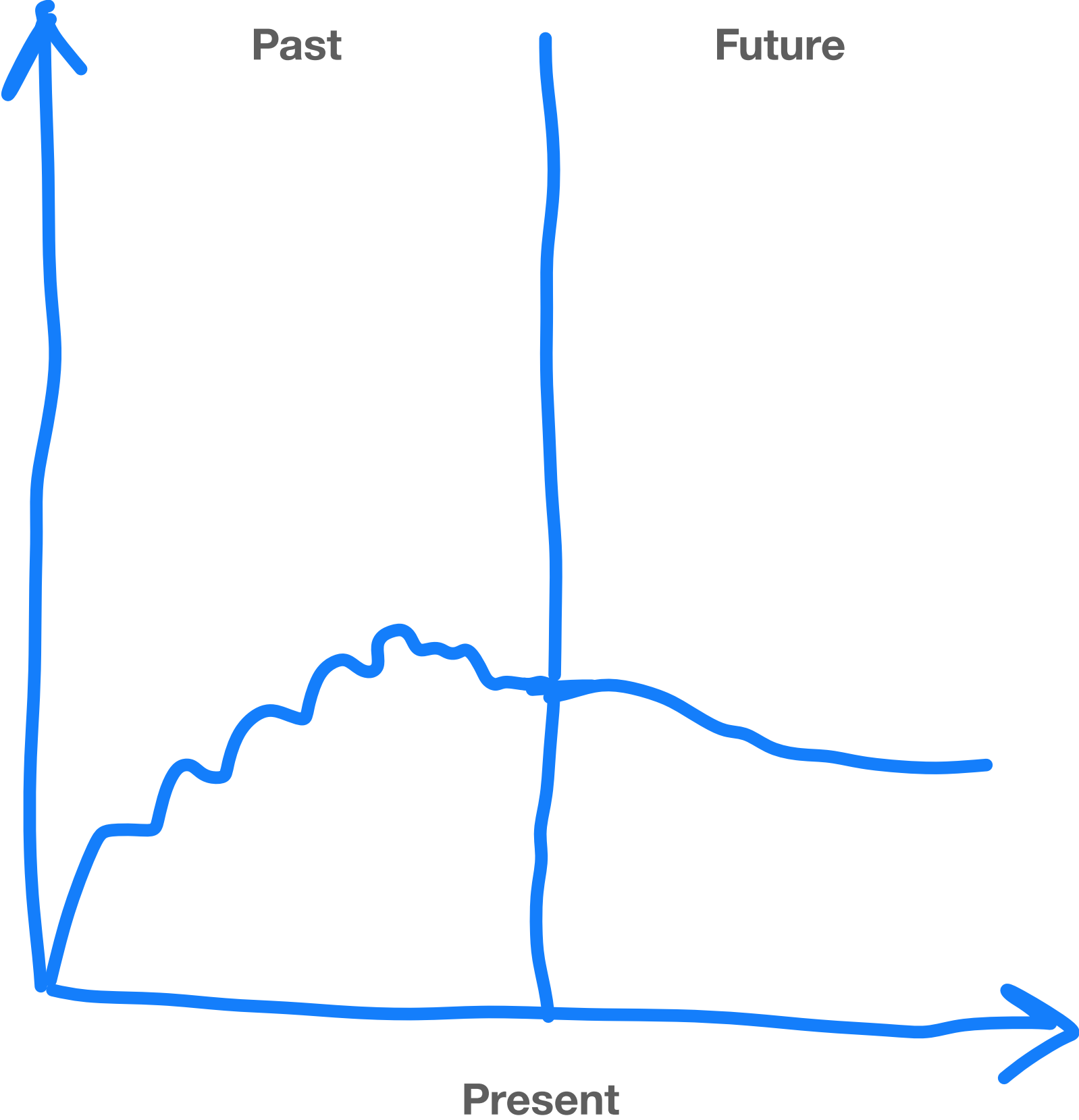
Will you be buying put option for this stock?

- ☒ Yes
- ☐ No



Will you be buying put option for this stock?

- ☐ Yes
- ☐ No

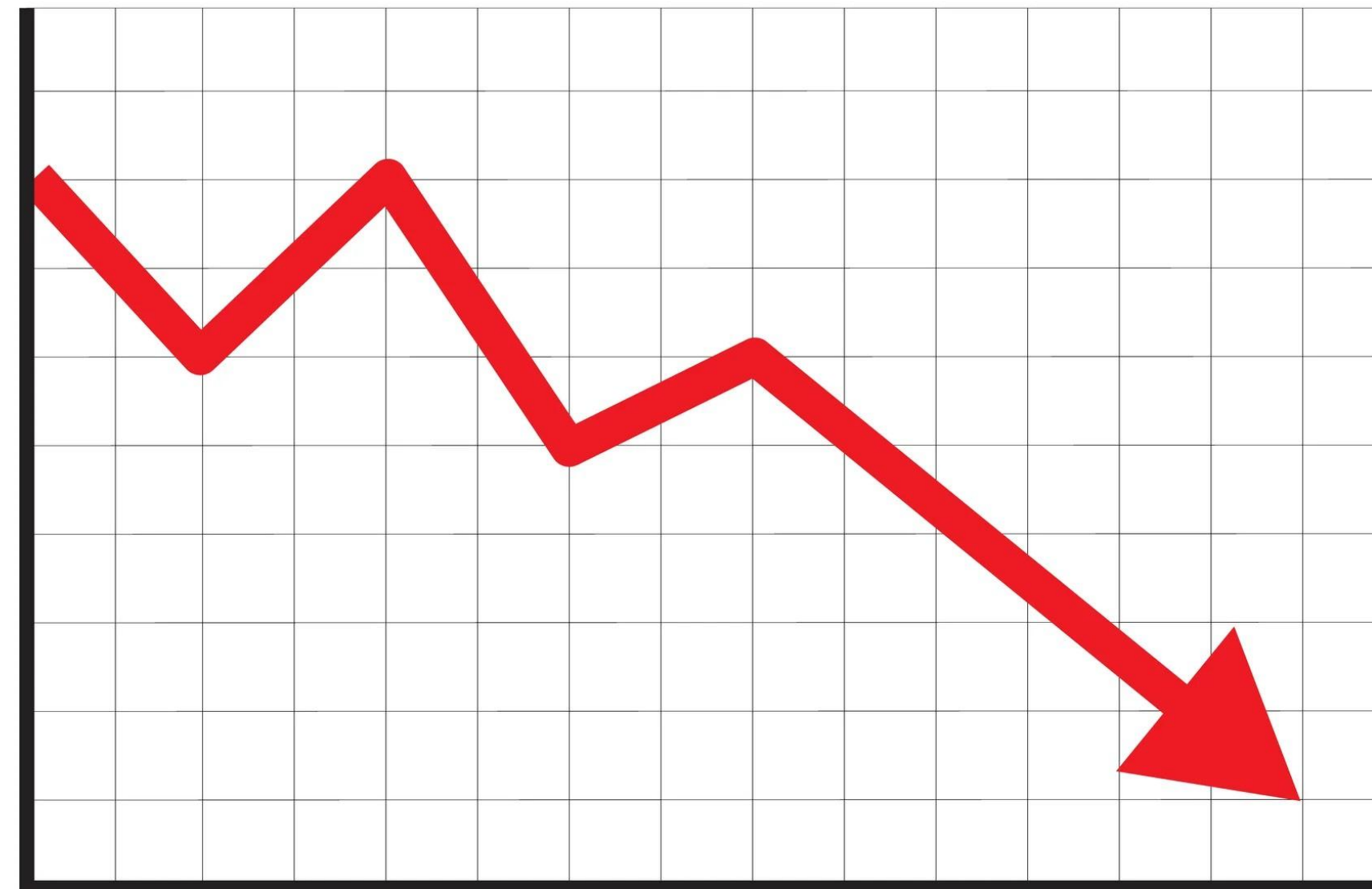


Will you be buying put option for this stock?

- Yes
- Probably not
- Puts should not be even considered for a pattern like this

Selling options

If you believe the price of an option will go down, you will borrow the option from someone who owns it, and sell it only to buy it back later on at a lower price and give it back to the person you borrowed from.

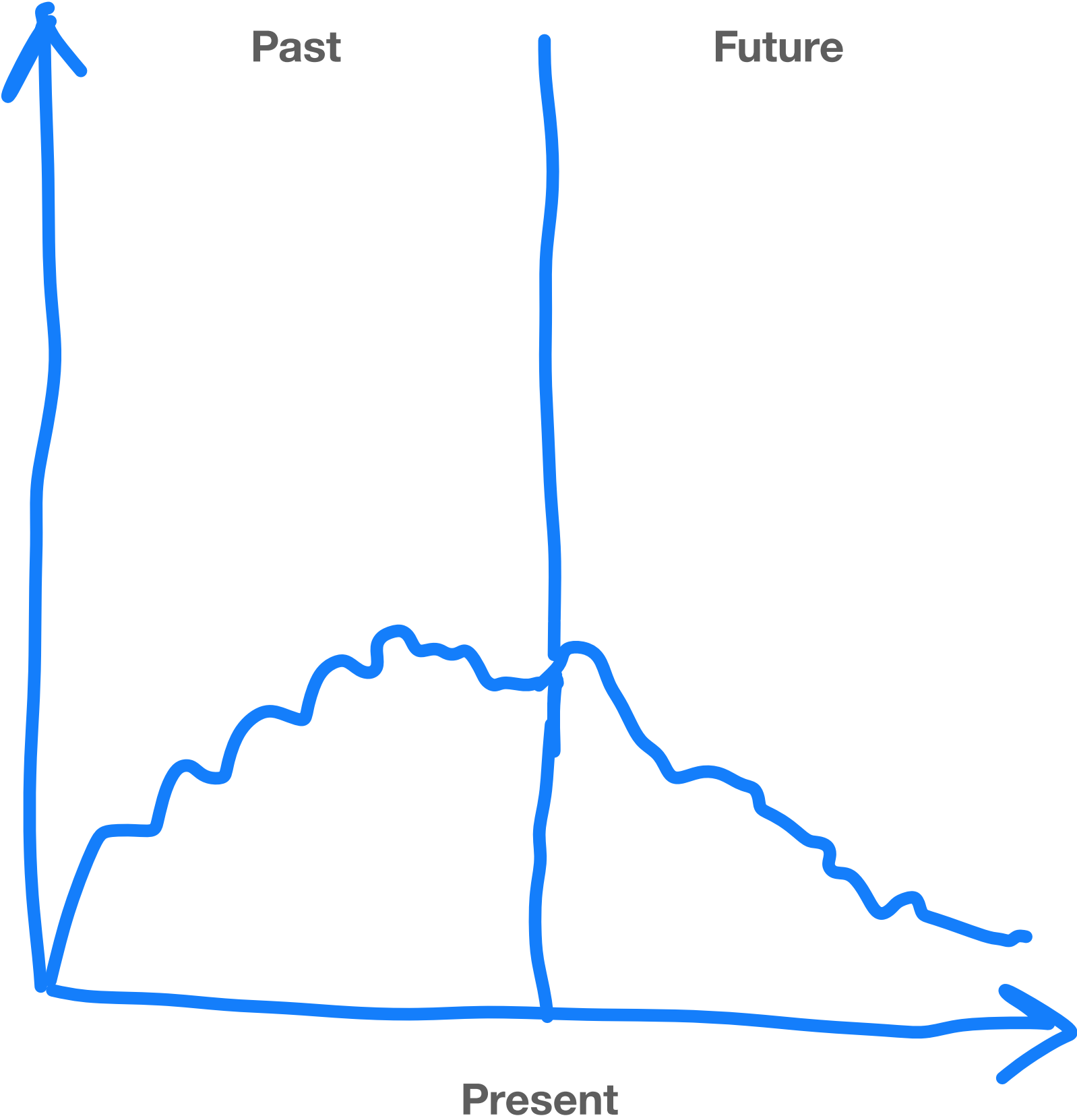


Selling Options

Is selling an option same as Put Option? ● Yes ● No

Show after user selects an option

Selling Options is different from Put Options. You can sell both call and put!



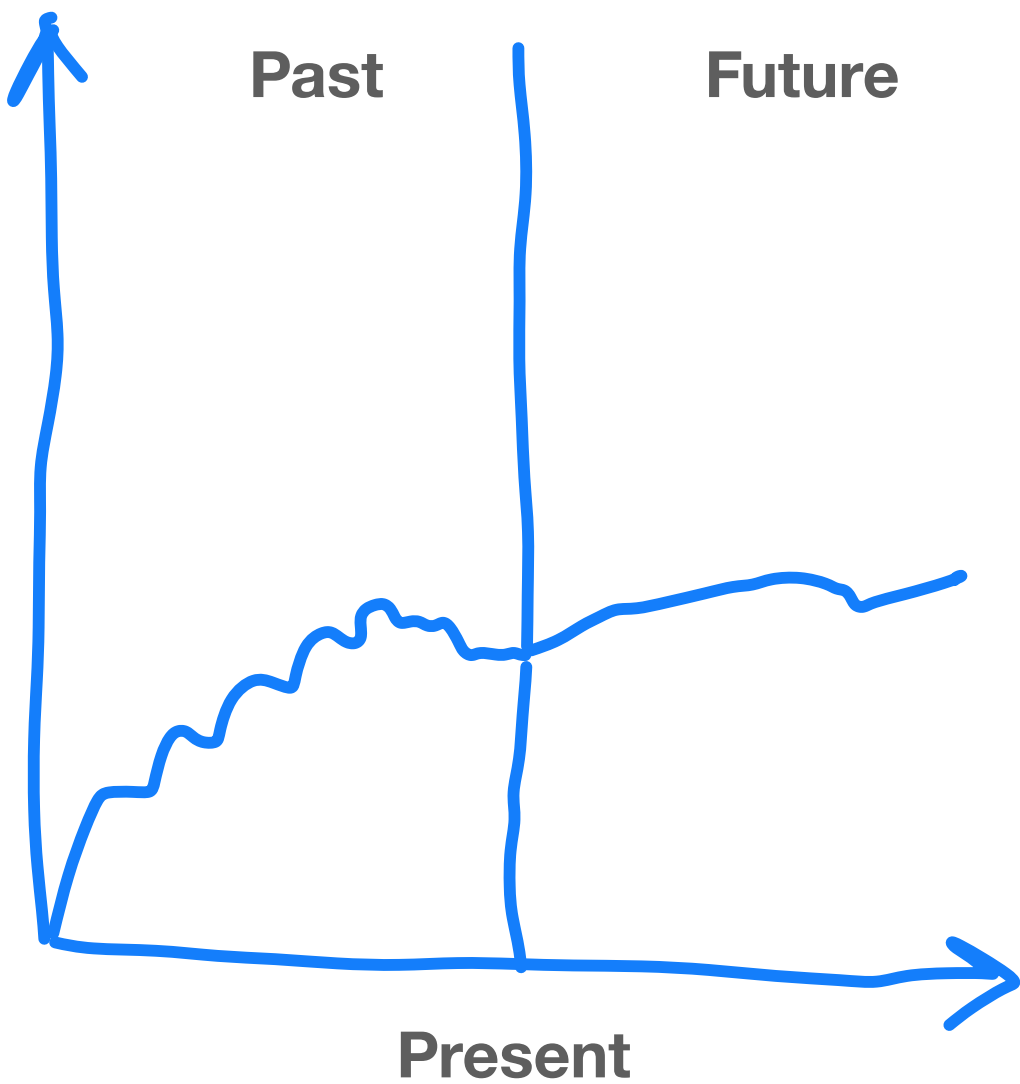
Will you be Buying or Selling the contract based on this price action?

- Buy
- Sell

Final Quiz - Solve as many as you can in 2 mins!

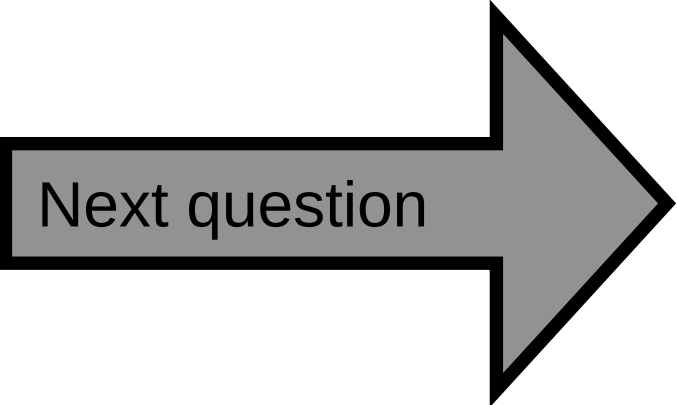
Your score: 52

Question y



What will be your strategy for a stock with this price action?

- Buy Calls
- Sell Calls
- Buy Puts
- Sell Puts



Congratulations!

Your Score is x!

Enter your name for the leaderboard:

Check Leaderboard

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