Congratulations! You passed!
TO PASS 67% or higher

Keep Learning

GRADE
100%

Trading Concepts Review

LATEST SUBMISSION GRADE
100%

1. **Which of these are common types of quantitative trading strategies?** — 1 / 1 point

- [x] **Forecasting**

  Correct
  Forecasting prices is one of the three correct answers. Please refer to the video on "Quant Strategies" to learn the other two.

- [x] **Mean reversion**

  Correct
  Mean reversion of prices or returns is one of the three correct answers. Please refer to the video on "Quant Strategies" to learn the other two.

- [x] **Correlation/Cointegration**

  Correct
  Correlation/ co-integration of prices is one of the three correct answers. Please refer to the video on "Quant Strategies" to learn the other two.

- [ ] **Dickey–Fuller**

2. **A stock is observed to have an average price of 50 with a +/- 5 variation over the past 100 trading days. You buy when the stock reaches 45 and sell when it reaches 55. What kind of arbitrage is this?** — 1 / 1 point

- ( ) **Carry**
- (•) **Statistical**
- ( ) **Merger**
- ( ) **Liquidation**

  Correct
  Statistical arbitrage is the correct answer. This is similar to the example given in Statistical Arbitrage-Mean Reversion.

3. **Which of these are challenges in statistical arbitrage?** — 1 / 1 point

- [x] **Trading, clearing, and exchange fees**

  Correct
  Trading, clearing, and exchange fees are a drag on trading profitability, especially for high-frequency trading. Please refer to the video on Statistical Arbitrage Opportunities and Challenges for other costs.

- [x] **Risk-based charges**

  Correct
  Risk-based charges are a drag on trading profitability, especially for high-risk trading. Please refer to the video on Statistical Arbitrage Opportunities and Challenges for other costs.

- [x] **Short sale interest**

Correct
Short sale interest is a drag on trading profitability, especially for stocks that are being shorted heavily by other traders. Please refer to the video on Statistical Arbitrage Opportunities and Challenges for other costs.

- [x] **Paying for liquidity**

Correct
Paying for liquidity is a drag on trading profitability, especially for thinly traded stocks that have high bid-ask spreads. Please refer to the video on Statistical Arbitrage Opportunities and Challenges for other costs.

4. **Which of these are valid uses of backtesting?** 1 / 1 point

- [x] **Quantify the hypothetical performance of your strategy for comparison with other strategies.**

Correct
Backtesting allows you to quantify the hypothetical performance of several candidate strategies so that you can choose those that have the highest return potential in live trading. Please refer to the video on Introduction to Backtesting for other valid uses.

- [x] **Predict likely capital requirements, trade frequency and risk for your portfolio.**

Correct
Backtesting is useful for predicting likely capital requirements, trade frequency and strategy risk. Please refer to the video on Introduction to Backtesting for other valid uses.

- [ ] **Ensure that your strategy will be profitable in live trading.**
- [ ] **Determine your maximum drawdown for your strategy in live trading**

5. **Which of these are common biases in back-testing?** 1 / 1 point

- [ ] **Risk bias**
- [x] **Optimization bias**

Correct
Optimization bias, which refers to the tendency to overfit your model to the data, along with look-ahead bias, survivorship bias and drawdown tolerance bias are four of the main potential weaknesses of backtesting.

- [x] **Look-ahead bias**

Correct
Look-ahead bias, where you inadvertently incorporate future data in your backtest, along with optimization bias, survivorship bias and drawdown tolerance bias are four of the main potential weaknesses of backtesting.

- [x] **Survivorship bias**

Correct
Survivorship bias, where you exclude stocks of companies that are no longer trading, along with optimization bias, look-ahead bias and drawdown tolerance bias are four of the main potential weaknesses of backtesting.

6. **Statistical arbitrage and index arbitrage account for most of the volume in quantitative trading. Please select the examples of stat arb from the choices below:** 1 / 1 point

- ( ) Selling an asset on one trading venue at 110 and simultaneously buying it back for 109.90 at a different trading venue.
- (•) Selling an asset on one trading venue at 110 and buying it back later for 109 at a different trading venue.
- ( ) Selling a basket of stocks that matches the composition of the S&P 500 for $300,000 and simultaneously buying 1000 shares of the SPY ETF for $299.70.

Correct
Yes, this is statistical arbitrage. The key term here is "later", so there is a risk that this trade won't be profitable. Stat arb trades are made at different times and expose you to the risk of taking a loss if the market trades in

the opposite direction from from your prediction.