As a junior quant, you are given a task to construct a price-weighted index, a market-cap-weighted index, and an equally-weighted index. The latter two indexes must start at the initial level of 1,000. You have selected 3 stocks and their characteristics are as follows:

	Stock A	Stock B	Stock C
Initial price at Time 0	\$2.00	\$20.00	\$200.00
Shares outstanding	100,000,000,000	100,000,000	1,000,000
Initial market cap	\$200,000,000,000	\$2,000,000,000	\$200,000,000
Daily Simple Return at Time 1	-1.20%	0.80%	10.00%

1. What is the level of a price-weighted index initially?

2. What is the value of the divisor if you are to set the initial level of the market-cap weighted index at 1,000?

3. Given an investment fund of \$14,400, how many shares of Stock B must you buy when you are constructing the equally-weighted index?

4. What are the respective simple daily returns of the 3 indexes after the prices move to the new prices according to the respective daily simple returns.
   Price-Weighted　Market-Cap Weighted　Equally-Weighted

5. A new Stock D of price \$10 is to be added to the equally-weighted index at Time 1. What is the value of the new divisor?

6. What are the differences between a stock market index and an ETF based on that index?

7. Information ratio is obtained from dividing the excess return by the tracking error. True or False?

8. What are your takeaways (something interesting, refreshing, or exciting)? Any questions?