Exercises Week 2
from John Hull, Chapter 1

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Exercises 1.1, 1.2 and 1.4

- What is the difference between a long forward position and a short forward position?
- What is the difference between entering into a long forward contract when the forward price is \$50 and taking a long position in a call option with a strike price of \$50?
- Explain carefully the difference between selling a call option and buying a put option.

EXERCISE 1. 5

An investor enters into a short forward contract to sell 100,000 British pounds for US dollars at an exchange rate of 1.5000 US dollars per pound. How much does the investor gain or lose if the exchange rate at the end of the contract is (a) 1.4900 and (b) 1.5200?

EXERCISE 1. 7

Suppose that you write a put contract with a strike price of $40 and an expiration date in 3 months. The current stock price is $41 and the contract is on 100 shares. What have you committed yourself to? How much could you gain or lose?

EXERCISE 1. 29

On May 8, 2013, as indicated in Table 1.2, the spot offer price of Google stock is $871.37 and the offer price of a call option with a strike price of $880 and a maturity date of September is $41.60. A trader is considering two alternatives: buy 100 shares of the stock and buy 100 September call options. For each alternative, what is (a) the upfront cost, (b) the total gain if the stock price in September is $950, and (c) the total loss if the stock price in September is $800. Assume that the option is not exercised before September and if the stock is purchased it is sold in September.

EXERCISE 1. 30

What is arbitrage? Explain the arbitrage opportunity when the price of a dually listed mining company stock is \$50 (USD) on the New York Stock Exchange and \$52 (CAD) on the Toronto Stock Exchange. Assume that the exchange rate is such that \$1 US dollar equals \$1.01 Canadian dollar. Explain what is likely to happen to prices as traders take advantage of this opportunity.