1. An interest rate is 12.5% per annum expressed with continuous compounding. What is the equivalent rate with semiannual compounding?

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2. .A trader sells 100 European put options (1 contract) with a strike price of $51 and a time to maturity of six months. The price received for each option is $3. The price of the underlying asset is $38 in six months. What is the trader's gain or loss? If loss, report a negative number.

3. An interest rate is 14% per annum when expressed with semiannual compounding. What is the equivalent rate with continuous compounding? Report the answer in % and round the number to the nearest 2 decimal percentage points such as 5.75%.

4. The three year zero rate is 5.1% and the four year zero rate is 6.5% (both continuously compounded). What is the forward rate (continuously compounded) for the fourth year? Report in % and round the number to the nearest 2 decimal percentage points such as 5.78%.

5. A company enters into a long futures contract to buy 1,000 barrels of oil for $62 per barrel. The initial margin is $10,000 and the maintenance margin is $4,000. What oil futures price will trigger a margin call?

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| .  |  |  6. A trader sells 100 European put options (1 contract) with a strike price of $51 and a time to maturity of six months. The price received for each option is $4. The price of the underlying asset is $38 in six months. What is the trader's gain or loss? If loss, report a negative number.7. The three year zero rate is 5.6% and the four year zero rate is 6% (both continuously compounded). What is the forward rate (continuously compounded) for the fourth year? Report in % and round the number to the nearest 2 decimal percentage points such as 5.78%.8. An interest rate is 13.01% per annum expressed with continuous compounding. What is the equivalent rate with semiannual compounding? (9. An investor writes four naked put options contracts. The option price is $3.2, the strike price is $63, and the stock price is $80. What is the initial margin requirement?10. An interest rate is 13% per annum when expressed with semiannual compounding. What is the equivalent rate with continuous compounding? Report the answer in % and round the number to the nearest 2 decimal percentage points such as 5.75%. 11. A company enters into a long futures contract to buy 1,000 barrels of oil for $61 per barrel. The initial margin is $8,000 and the maintenance margin is $4,000. What oil futures price will trigger a margin call?  |