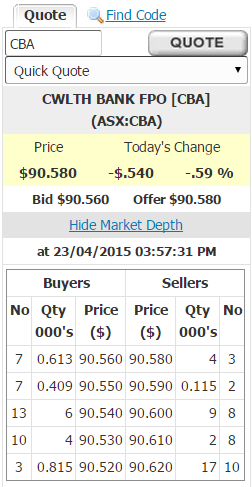
**Exchange traded Stock, Option and Bond**

**Limit and Market Order Questions**

**Question 1** (total of 21 marks):Below is a screenshot from E-Trade which shows details of CBA bank shares.

**Question 1a** (3 marks): What is the bid-ask spread on these shares?

**Question 1b** (3 marks): What is your best estimate of the 'true price' of these shares?

**Question 1c** (3 marks): What is the best price that you could **buy** one share when placing a market order?

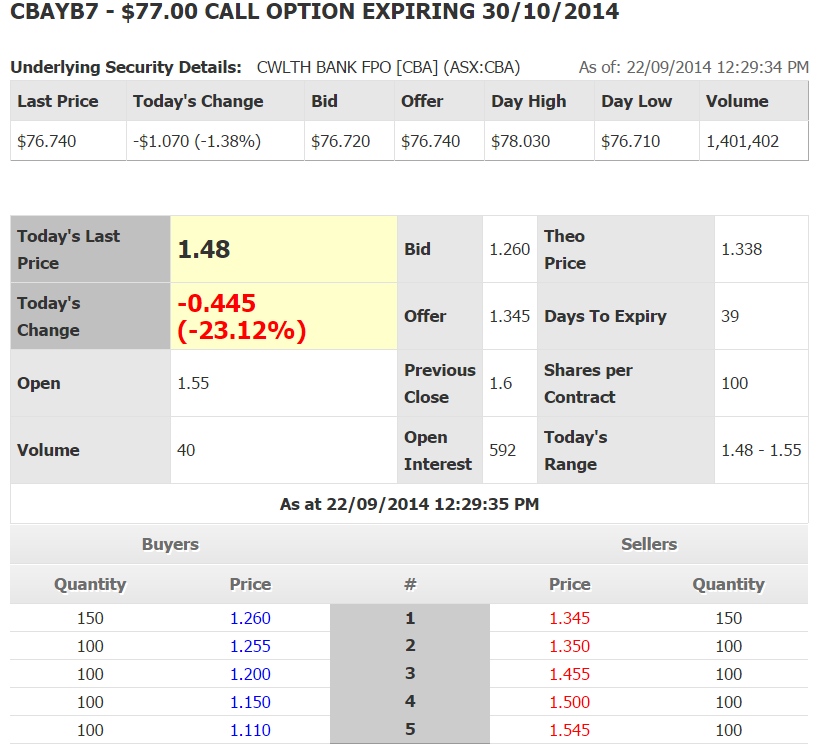
**Question 1d** (3 marks): For how much money could you **sell** **5,000** shares when submitting a market order? (Note that in this question you are selling, in the previous question, you were buying).

**Question 1e** (3 marks): What would be the **implicit cost** of **selling** these 5,000 shares using a market order, given your 'true price' answered above?

**Question 1f** (3 marks): List **one** advantage of a placing a limit order rather than a market order.

**Question 1g** (3 marks): List **two** **dis**advantages of a placing a limit order rather than a market order.

**Question 1** (total of 24 marks):Below is a screenshot from E-Trade which shows details of a call option on CBA bank shares. Note that the strike price is $77.

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**Question 1a** (3 marks): What is the bid-ask spread on these options?

**Question 1b** (3 marks): What is your best estimate of the 'true price' of these call options?

**Question 1c** (3 marks): What is the best price that you could **buy** one call option contract when placing a market order? Be aware that one call option contract is on 100 shares and prices are listed on a per-share basis rather than a per contract basis.

**Question 1d** (3 marks): How much money could you **sell** 200 call options for? (Note that in this question you are selling, in the previous question, you are buying).

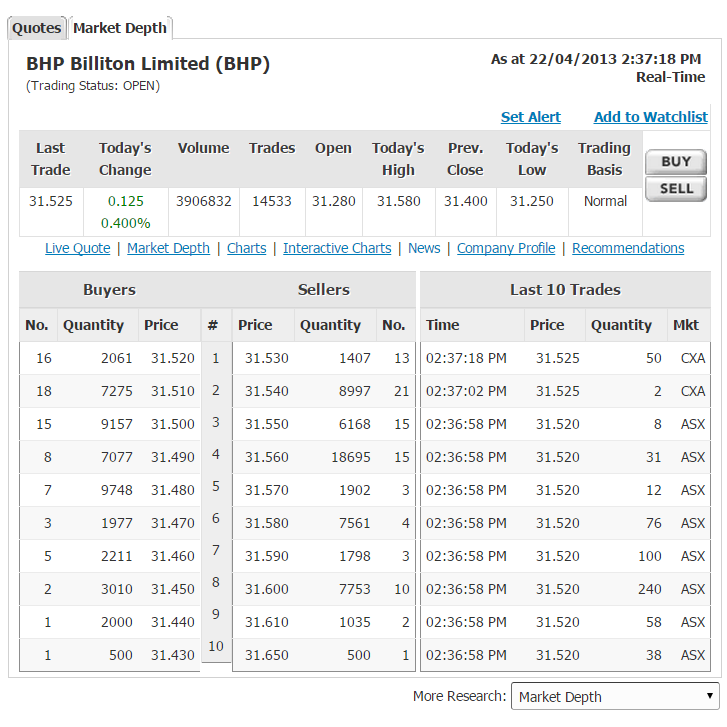
**Question 1e** (3 marks): What would be the **implicit cost** of **selling** these 200 call options, given your 'true price' answered above?

**Question 1f** (3 marks): Is this call option 'in-the-money' or 'out-of-the-money'?

**Question 1g** (3 marks): The quantity demanded by the top 5 buyers equals the quantity supplied by the top 5 sellers. Will this always be the case?

**Question 1h** (3 marks): The CBA share price $1.07 from the previous day, but the call option fell by $0.445. Would you usually expect the value of the share to change by more than the value of the call option? Explain why or why not.

**Question 1** (total of 15 marks):Below is a screenshot from E-Trade which shows details of BHP shares.



**Question 1a** (3 marks): What is the bid-ask spread on these shares?

**Question 1b** (3 marks): What is your best estimate of the 'true price' of these

**Question 1c** (3 marks): What is the best price that you could **buy** one share when placing a market order?

**Question 1d** (3 marks): How much money could you **sell** **5,000** shares for? (Note that in this question you are selling, in the previous question, you were buying).

**Question 1e** (3 marks): What would be the **implicit cost** of **selling** these 5,000 shares using a market order, given your 'true price' answered above?

**Question 1** (total of 20 marks):

The next few questions relate to the data below which is a screenshot from the broking platform ETRADE showing the market depth for BHP call options. (8 marks)

|  |  |
| --- | --- |
| BHPUJ8 **- $35.00 CALL OPTION** EXPIRING 25/07/2013  **Underlying Security Details:**   BHP BLT FPO [BHP] (ASX:BHP) | As of: 22/04/2013 2:34:16 PM |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Last Price** | **Today's Change** | **Bid** | **Offer** | **Day High** | **Day Low** | **Volume** |
| $31.530 | $0.130 (.41%) | $31.520 | $31.530 | $31.580 | $31.250 | 3,891,894 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Today's Last Price** | **0.75** | **Bid** | 0.390 | **Theoretical Price** | 0.439 |
| **Today's Change** | **0.34 (82.93%)** | **Offer** | 0.430 | **Days To Expiry** | 95 |
| **Open** | 0 | **Previous Close** | 0 | **Shares per Contract** | 100 |
| **Volume** | 0 | **Open Interest** | 474 | **Today's Range** | 0 - 0 |
| **As at 22/04/2013 2:34:16 PM** | | | | | |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | **Buyers** | |  | **Sellers** | | | **Quantity** | **Price** | **#** | **Price** | **Quantity** | | 30 | 0.390 | **1** | 0.430 | 30 | | 20 | 0.0380 | **2** | 0.450 | 10 | | 0 | 0.000 | **3** | 0.000 | 0 | | 0 | 0.000 | **4** | 0.000 | 0 | | 0 | 0.000 | **5** | 0.000 | 0 | | | | | | |

**Question 1a** (2 marks): Of the 3 choices below, where each is in bold, circle the correct answer:

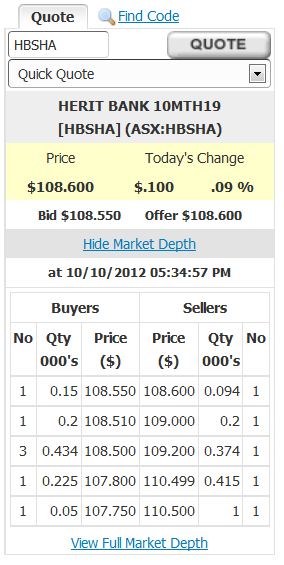
The call option is **in** the money,  **at** the money, or **out** of the money.

**Question 1b** (4 marks): ETRADE calculates the theoretical option price to be $0.439. In their FAQ they state that the theoretical option price is only a guide, but that it is calculated using the Black-Scholes option pricing equation. In one sentence, explain whether the estimated theoretical option price looks reasonable.

**Question 1c** (4 marks): What is the intrinsic value of this call option?

**Question 1d** (4 marks): What is the breakeven price of this call option?

**Question 1e** (6 marks): A trader is planning to buy 35 of the above call options by submitting a market order. Ignoring broking fees, what will be the total cost of her purchase?

**Question 1** (total of 12 marks):On the right is a screenshot from E-Trade which shows the market depth for Heritage Notes (ticker: HBSHA).

**Question 1a** (3 marks): What is the bid-ask spread on these notes?

**Question 1b** (3 marks): What is your best estimate of the 'true price' of these notes?

**Question 1c** (3 marks): What is the best price that you could buy **one** Heritage Note when placing a market order?

**Question 1d** (3 marks): How much would it cost to buy 200 notes, excluding transaction costs?