Quiz B: 8/~~3~~4/14 Name Key

Assume the bid price for Proctor & Gamble is $79.64 and that the ask price for Proctor & Gamble is $79.66. Assume also that a call on Proctor & Gamble that expires on October 18 (75 days from today) with a strike price of $80 has a bid price of $1.65 and an ask price of $1.74. Assume the equivalent put (same expiration and strike) has a bid price of $2.09 and an ask price of $2.16. Assume that the risk-free interest rate is 1%.

Note: Answer the following on a per-share basis. Use a "+" for inflows and a "-" for outflows.

a. What transactions today will lead to an arbitrage profit today?

b. What individual and net cash flows will be created by each of your transactions (in part a) on October 18 if Proctor & Gamble stock ends up at $84. What if Proctor & Gamble ends up at $77?

$$PV(K) = \frac{80}{(1.01)^{75/365}} = 79.84$$

$$S + P = C + PV(K)$$

X Buy: $79.66 + 2.16 = 81.82 > 81.49 = 1.65 + 79.84$: Sell

✓ Sell: $79.64 + 2.09 = 81.73 > 81.58 = 1.74 + 79.84$: Buy

		CF_1	
Trans	CF_0	84	77
+5 Short Stock	+79.64 +5	− 84 +3	−77 +3
+5 Sell put	+2.09 +5	Ø +3	−3 +3
+5 Buy call	−1.74 +5	+4 +3	Ø +3
+5 Buy bond	−79.84 +5	+80 +3	+80 +3
Total	+0.15 +5	Ø +3	Ø +3