Quiz A: 8/~~8~~4/14 Name Key

Assume the bid price for Microsoft is $42.85 and that the ask price for Microsoft is $42.87. Assume also that a call on Microsoft that expires on October 18 (75 days from today) with a strike price of $40 has a bid price of $3.20 and an ask price of $3.35. Assume the equivalent put (same expiration and strike) has a bid price of $0.62 and an ask price of $0.64. Assume that the risk-free interest rate is 2%.

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 Microsoft stock ends up at ~~$46~~ 45. What if Microsoft ends up at $34?

$PV(K) = \frac{40}{(1.02)^{75/365}} = 39.84$

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

X Buy: $42.87 + 0.64 = 43.51 > 43.04 = 3.20 + 39.84$: Sell

✓ Sell: $42.85 + .62 = 43.47 > 43.13 = 3.35 + 39.84$: Buy

	Trans	CF_0	CF_1: 45	34
+5	Short stock	+42.85 +5	−45 +3	−34 +3
+5	Sell put	+0.62 +5	Ø +3	−6 +3
+5	Buy call	−3.35 +5	+5 +3	Ø +3
+5	Buy bond	−39.84 +5	+40 +3	+40 +3
	Total	+0.28 +5	Ø +3	Ø +3