Quiz B for 4:00 Class: 11/12/12
Name $\qquad$
Assume you are planning to buy a call on Pepsico with an exercise price of $\$ 67.50$ that expires 158 days from today on $4 / 19 / 13$. If you buy the call, you only plan to hold it for 95 days until $2 / 15 / 13$. Pepsico's stock price currently equals $\$ 69$ per share. By $2 / 15 / 13$, you expect Pepsico's stock price to rise to $\$ 72$ per share and by $4 / 19 / 13$, you expect Pepsico's stock price to rise to $\$ 85$ per share. By a year from today (11/12/13), you expect Pepsico’s stock price to fall back to $\$ 65$ per share.

Using the following information, set up the equations and plug in as many numbers as possible to use the Black-Scholes option pricing model to value this option.

Between now and:

| Standard deviation of returns on: | $\underline{1 / 18 / 13}$ |  | $\underline{4 / 19 / 13}$ | $\underline{11 / 12 / 13}$ |
| :--- | ---: | ---: | ---: | ---: |
| Pepsico's assets | $5.2 \%$ |  | $6.4 \%$ | $7.1 \%$ |
| Pepsico's stock | $10.2 \%$ |  | $12.1 \%$ | $14.6 \%$ |
| Pepsico's bonds | $2.5 \%$ |  | $3.6 \%$ | $3.8 \%$ |
| An equivalent put | $25.6 \%$ |  | $32.5 \%$ | $34.4 \%$ |
| This call | $19.0 \%$ | $21.0 \%$ | $24.2 \%$ |  |
|  |  |  |  |  |
| Annualized return on: | $\underline{1 / 17 / 13}$ | $\underline{4 / 18 / 13}$ | $\underline{11 / 11 / 13}$ |  |
| U.S. Treasuries (all < 1\%): | $0.120 \%$ | $0.117 \%$ | $0.204 \%$ |  |
| Pepsico's bonds | $0.35 \%$ | $0.45 \%$ | $0.50 \%$ |  |

Wall Street Journal Questions are on the back of this page.

## Wall Street Journal Bonus Questions

1. The White House and Republican lawmakers faced pressure to reach a solution to the looming budget crisis after $\qquad$ detailed Thursday how inaction would push the U.S. economy back into recession next year, and skittish investors continued to drive stocks lower.
a. the World Bank
b. the Congressional Budget Office
c. the International Monetary Fund
d. the Democratic Party
e. the Republican Party
2. The stock price of retailer $\qquad$ , in the middle of a long and painful turnaround under former Apple Inc. retail executive Ron Johnson, fell nearly 5\% on Friday when it announced that in its most recent quarter it lost $\$ 123$ million as sales dropped $27 \%$.
a. Wal-Mart
b. Home Depot
c. Kroger
d. Best Buy
e. J.C. Penney
3. The Wall Street Journal reports that the prospect of higher taxes on capital gains is prompting many investors to
a. unload some of their winning stocks
e. shift into high-risk municipal bonds
b. unload some of their losing stocks
d. shift into lower risk corporate bonds
c. shift into lower risk stocks
