Quiz B for 1:00 Class: 04/17/13   Name ___*Key*___

Using the following information, set up the calculations (write out equations and plug in the numbers) needed to determine the value of a put on H.J. Heinz that expires on June 21, 2013 (65 days from today) and which has a strike price of $75. You plan to hold this put only through May 17, 2013 (30 days from today). Risk-free interest rates (all less than 1%) vary by maturity as follows: 5/16 = 0.030%, 5/23 = 0.020%, 5/30 = 0.035%, 6/6 = 0.040%, 6/13 = 0.036%, 6/20 = 0.041%, 6/27 = 0.042%, 7/5 = 0.046%, 7/11 = 0.056%, 7/18 = 0.051%, and 7/25 = 0.057%. Note: All of the following are per-share data related to Heinz.

Actual or expected values as of:

	4/17	5/17	6/21
Assets	85	83	81
Stock	72	71	70
Debt	13	12	11

Expected standard deviation between now and:

	4/17	5/17	6/21
Assets	3%	4.5%	5.5%
Stock	4%	5%	6%
Debt	1%	2%	2.5%
Equivalent call	20%	22%	25%
This put	18%	19%	21%

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

+3 $\left(d_1 = \dfrac{\ln\left(\dfrac{\overset{+4}{72}}{PV(K)}\right)}{.06\sqrt{\underset{+2}{\dfrac{65}{365}}}_{+2}} + \dfrac{\overset{+2}{.06}\sqrt{\overset{+2}{\dfrac{65}{365}}}}{2} \right)$ ⑮

+3 $\left(PV(K) = \dfrac{\overset{+7}{75}}{(1.00041)^{\overset{+2}{65/365}}}_{+7} \right)$ ⑲

+3 $\left(d_2 = d_1 - \overset{+2}{.06}\sqrt{\dfrac{65}{365}+2} \right)$ ⑦

+4 $\left(P = PV(K)(1 - N(d_2)) - \overset{+4}{72}(1 - N(d_2)) \right)$ ⑧

+1 ⇒ look up $N(d_1) + N(d_2)$ on tables or with Excel