**REAL OPTIONS 2013 CLASS EXERCISE 2**

**NAME\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Maria Cristina Isabella Silva wants to win her cycle race and believes she could go faster on a new cycle. New cycles cost a fortune, 300, and Maria is not convinced that she wants to pay that much to go faster. 100% speed is worth 80, constant exercise to obtain this level is 10. Using her old current cycle, she is now at quarter speed and losing in races. The current interest rate is 14%. She believes her speed volatility is 30%, a new cycle speed rate would deteriorate at a rate of 5% per annum, so = -1. Advise her. HINT: ** **is the solution to a quadratic equation, where a=(1/(-(r-)PI), b=(-1)/-(r-),c=-((PI/(r-))-K).**

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