**Orion Controls Assignment**

Orion Controls: *Individual Assignment to be turned in for a grade:*  Please consider the following questions.

1. What would be your recommendation to Armstrong regarding his response to Avion’s proposal for the development of the new valve system? In your evaluations, ignore the time value of money. Be clear about your assumptions, show the details of your work, be explicit about which alternatives you are evaluating and how you calculated the monetary consequences, and offer meaningful sensitivity analysis where appropriate. Given Armstrong’s understanding of the situation, what would you recommend and why? (Please be sure to show your analysis, and comment on how sensitive your recommendation is to your assumptions.)
2. In your solution to the problem above, have you identified an option that Armstrong might have in managing the development of the new valve? If so, what is the option worth? That is, how much does it add to your estimate of the value of the new valve alternative?
3. Now, suppose Armstrong considers negotiating “deal” with Alicia Harrington, the head of Engineering at Orion, that would allow her to start the work on the new valve earlier, and not delay the work for five months. This would effectively guarantee the success of the valve redesign, and eliminate the risk of failure for this activity. What would controlling this risk be worth?
4. Finally, suppose Armstrong could make a deal with Gemini that would create a small team of experts who could determine if the software shortcut would be successful before he has to make the choice between the new and the old valve. This team would not do any useful work on the project, but they would be able to provide assurances that the shortcut would work, or that it would not. What would be the value of this information?