# **Sullivan. Problem 6-71 (Excel). V4**

## **Project Description:**

In this problem, you will calculate IRRs of the differences between mutually exclusive alternatives and determine which one of these alternatives or none of them should be selected.

## **Steps to Perform:**

| **Step** | **Instructions** | **Points Possible** |
| --- | --- | --- |
| 1 | **Complete the steps below using cell references to given data or previous calculations. In some cases, a simple cell reference is all you need. To copy/paste a formula across a row or down a column, an absolute cell reference or a mixed cell reference may be preferred. If a specific Excel function is to be used, the directions will specify the use of that function. Do not type in numerical data into a cell or function. Instead, make a reference to the cell in which the data is found. Make your computations only in the blue cells highlighted below. In all cases, unless otherwise directed, use the earliest appearance of the data in your formulas, usually the Given Data section.**  Start Excel. Download and open the workbook named: **Sullivan\_Problem\_6-71\_Start.** | 0 |
| 2 | In cell **F17**, determine which alternatives should be considered as the base alternative and the first-choice alternative.  **Note:** The do-nothing alternative (DN) should be selected as a base alternative. | 1 |
| 3 | In cells **F18:F28**, by using cell references, calculate the incremental cash flow between the alternatives selected in cell **F17**.  **Note:** Cash outflows should be entered as negative values. | 3 |
| 4 | In cell **F29**, by using cell references and the function **IRR**, calculate the internal rate of return for the first increment.   **Note:** 1. Use cell references to the incremental cash flows from Step 3 in your calculations. 2. Do not enter any value for the **Guess** argument of the function **IRR**. | 1 |
| 5 | In cell **F30**, determine whether the first increment is justified. | 1 |
| 6 | In cell **G17**, determine which alternatives should be considered as the current base alternative and the second-choice alternative. | 1 |
| 7 | In cells **G18:G28**, by using cell references, calculate the incremental cash flow between the alternatives selected in cell **G17**.  **Note:** Cash outflows should be entered as negative values. | 3 |
| 8 | In cell **G29**, by using cell references and the function **IRR**, calculate the internal rate of return for the second increment.   **Note:** 1. Use cell references to the incremental cash flows from Step 7 in your calculations. 2. Do not enter any value for the **Guess** argument of the function **IRR**. | 1 |
| 9 | In cell **G30**, determine whether the second increment is justified. | 1 |
| 10 | In cell **H17**, determine which alternatives should be considered as the current base alternative and the third-choice alternative. | 1 |
| 11 | In cells **H18:H28**, by using cell references, calculate the incremental cash flow between the alternatives selected in cell **H17**.  **Note:** Cash outflows should be entered as negative values. | 3 |
| 12 | In cell **H29**, by using cell references and the function **IRR**, calculate the internal rate of return for the third increment.  **Note:** 1. Use cell references to the incremental cash flows from Step 11 in your calculations. 2. Do not enter any value for the **Guess** argument of the function **IRR**. | 1 |
| 13 | In cell **H30**, determine whether the third increment is justified. | 1 |
| 14 | In cell **C32**, determine which alternative should be chosen. | 1 |
| 15 | Save the workbook. Close the workbook and then exit Excel. Submit the workbook as directed. | 0 |

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| **Total Points** | **19** |