

## Midterm # 2 Spring Free response question answers

FR1: =VLOOKUP( INDEX(Employment!A2:A9, MATCH(MIN(Employment!C2:C9), Employment!C2:C9, 0), 1), Population!A2:B9, 2, FALSE)

FR2: =IF(MIN(E\$2:E\$9)=E2, "Lowest Rated", "")

FR3: The Excel MATCH function needs a sorted array (data in the column or row needs to be sorted) in case the option [MATCH\_TYPE] is 1 or -1 is to be used.

This means that a search algorithm such as the Binary Search can be used to find a suitable match. However, in case of the [MATCH\_TYPE] = 0 only a linear search is possible as no order can be expected in the data.

Finally, we know that algorithms such as Binary search are much faster than Linear search, hence the [MATCH\_TYPE] is 1 or -1 is faster than the [MATCH\_TYPE] = 0

Please implement these solutions and see that they work. Understand why they do.

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## Midterm # 2 Fall 2014 Free response answers

FR1: =AVERAGE(E2:E69)

FR2: =Order!B2 \* INDEX( Menu!B3:E3, 1, Order!E2)

FR3: =SUMIFS(B2:B7, F2:F7, "Great")

Please implement these solutions and see that they work. Understand why they do.