



Ways of using Excel

Please refer the example excel sheet used in class.

Example 1: How many days did the temperature stay below 32 degrees?

ANSWER: =SUM (K2 : K109)

Use sum to add the number of days.

Example 2: How many days in 2009 total did the temperature stay below 32?

ANSWER: =SUMIFS (K2 : K109, A2 : A109, "2009")

Add all the days listed under column days 32 which correspond to the year 2009.

Example 3: How many days in year X total did the temperature stay below 32?

ANSWER: =SUMIFS (K2 : K109, A2 : A109, C118)

Same idea as example 2.

Example 4: How many days in year X was the temperature less than 32 and was the average low colder than Y degrees?

ANSWER: =SUMIFS (K2 : K109, A2 : A109, C122, F2 : F109, "<"&C123)

Example 5: How many months was there at least one day with temperature below 32 degrees?

ANSWER: =COUNTIFS (K2 : K109, ">0")

Example 6: What was the average mean temperature for the following years?

ANSWER: =AVERAGEIFS (G2 : G109, A2 : A109, B130)

=AVERAGEIFS (G2 : G109, A2 : A109, B131)



Instead, to be able to drag a cell down or copy paste the formula, you can write the formula as follows:

ANSWER: =AVERAGEIFS (\$G\$2:\$G\$109, \$A\$2:\$A\$109, B130)

If this is copy pasted, only B130 is updated.

Some more Excel functions

Example 7: What is the most precipitation that occurred in a month?

ANSWER: =MAX (C2:C109)

Example 8: What is the least average low temperature ever?

ANSWER: =MIN (F2:F109)

MATCH () : finds a value within an array and returns the location within the array.

=MATCH (lookup_value, lookup_array, 0)

0 means it's an exact match.

Example 9: Which row did the coldest average low appear in (within 2-109)?

ANSWER: =MATCH (MIN (F2:F109), F2:F109, 0)

INDEX () : takes a location within an array and returns its value

=INDEX (array, row_num, [column_num])

Example 10: What year did the coldest average low occur in?

ANSWER: =INDEX (A2:A109, C147, 1)

COMBO of 8, 9 and 10: =INDEX (A2:A109, MATCH (MIN (F2:F109), F2:F109, 0), 1)