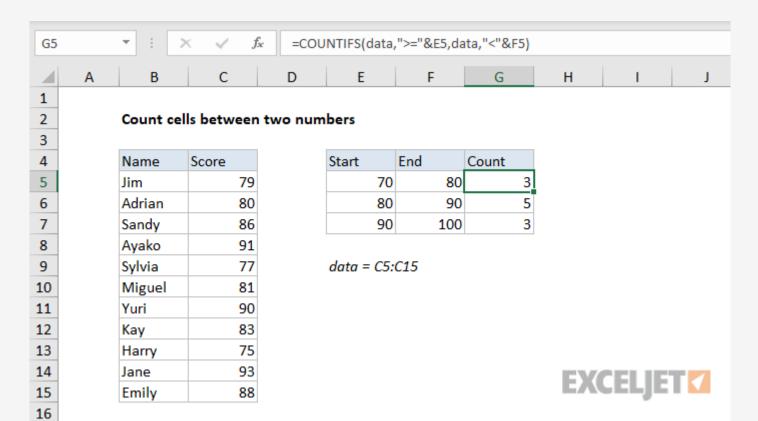
### Count cells between two numbers



## Generic formula

```
= COUNTIFS(range, ">=" & A1, range, "<" & B1)</pre>
```

### Summary

To count the number of cells that contain values between two numbers in a range of cells, you can use the **COUNTIFS** function. In the generic form of the formula (above), **range** represents a range of cells that contain numbers, A1 represents the lower boundary, and B1 represents the upper boundary of the numbers you want to count. In the example shown, the formula in G5, copied down, is:

```
= COUNTIFS(data, ">=" & E5, data, "<" & F5)</pre>
```

where **data** is the <u>named range</u> C5:C15.

# Explanation

The goal in this example is to count numbers that fall within specific ranges as shown. The lower value comes from the "Start" column, and the upper value comes from the "End" column. For each range, we want to *include* the lower value, but *exclude* the upper value. For convenience only, the numbers being counted are in the <u>named range</u> data.

The formula used to solve this problem is based on the <u>COUNTIFS function</u>, which is designed to count cells that meet multiple criteria.

```
= COUNTIFS(data, ">=" & E5, data, "<" & F5)</pre>
```

data that are greater than or equal to (>=) the "Start" value in column E:

COUNTIFS accepts criteria as range/criteria pairs. The first range/criteria pair checks for values in

```
data, ">=" & E5
```

column F:

The second range/criteria pair checks for values in data that are less than (<) the "End" value in

```
Because we supply the same range for both criteria, each cell in data must meet both criteria in
```

order to be included in the final count. Note in both cases, we need to <u>concatenate</u> the cell reference to the <u>logical operator</u>. This is a

quirk of **RACON** functions in Excel. As the formula is copied down column G, it returns the count of numbers that fall in the range

defined by columns E and F.

data, "<" & F5

**COUNTIF** alternative If you have an older version of Excel that doesn't have the COUNTIFS function, you can use the

```
COUNTIF function instead like this:
```

= COUNTIF(data, ">=" & E5) - COUNTIF(data, ">=" & F5)

The first COUNTIF counts the number of cells in a range that are greater than or equal to the "Start" (which by definition also includes values greater than the "End" value, since "End" is

greater than "Start"). The second COUNTIF counts the number of cells with values greater or equal to the "End" value. This second number is subtracted from the first number, which yields

the final result – the number of cells that contain values between "Start" and "End".