# Lab 1: Formulas and Cell referencing

In this lab, you will learn how to apply simple arithmetic as well as statistical formulas over a range of data. Using absolute and relative cell referencing appropriately to get the desired output.

You are given a dataset of Car Sales ([Car Sales Dataset](https://docs.google.com/spreadsheets/d/1KEG-id40liQ_MoyoiydCRn3JvA88W6Xsl-F9sqrVnpk/edit?usp=sharing)). Download the google sheet in Excel format(.xlsx). You can find it in the File -> Download drop down list.

If you have Excel well and good, else you can use ‘Excel for the Web’ by logging into ‘MS Office 365’ using your LDAP ID. Then upload and open the downloaded excel sheet to work on it.

Answer the questions that follow to find the missing data.

**Question 1**

Open the attached workbook. In F7 calculate Base Pay by multiplying the Hours by the Rate. Copy the formula down to F12. What is Sophie Yang's Base Pay for the week?

**Ans: 1083.00**

**Question 2**

In G7 calculate the Commission amount by multiplying the Base Pay by the Commission Rate in J3. Copy the formula down to G12. What is Diepak Kumar's Commission for the week?

**Ans: 39.90**

**Question 3**

In H7 calculate Gross Pay by adding Base Pay and Commission. Copy the formula down to H12. What is Diepak Kumar's Gross Pay for the week?

**Ans: 1037.40**

**Question 4**

In I7 calculate Tax by multiplying Gross Pay by the Tax Rate in J4 (in this instance all staff are on the same tax rate). Copy the formula down to I12. What is Diepak Kumar's Tax for the week?

**Ans: 290.47**

**Question 5**

In J7 calculate Net Pay by subtracting Tax from Gross Pay. Copy the formula down to J12. What is Steve Welgemoed's Net Pay for the week?

**Ans:114.62**

**Question 6**

In cells F14:J14 calculate totals for each of the columns. What was the total Gross Pay?

**Ans:5358.39**

**Question 7**

In cells F16:J16 calculate an average for each of the columns. What was the Average Commission?

**Ans:34.35**

**Question 8**

In cells F17:J17 calculate the maximum for each of the columns. What was the Maximum Tax?

**Ans:344.78**

**Question 9**

In cells F18:J18 calculate the minimum for each of the columns. What was the Minimum Commission?

**Ans:15.74**

**Question 10**

In cells F19:J19 calculate the median for each of the columns. What was the Minimum Commission? // I’m assuming you guys meant median

**Ans:40.51**

**Question 11**

Click into the Branch Summary worksheet. First, we want to calculate the Total Commission for Edenvale (see the Branch column on both sheets). In B6 type in =SUM( then click into Pay Details and select G7:G9, then press Enter. Repeat the process, selecting the appropriate cells, to get the Total Commission for Sandown.

Use the fill handle to get Total Gross Pay for Edenvale and Sandown. What was the Total Gross Pay for Sandown?

**Ans: 3337.88**

Note: Formulas are supposed to be used, simply writing the answer will not be graded.