Simple Arithmetic Data

Value 1 4

Value 2 2

Add **6**

Subtract **2**

Multiply **8**

Divide **2**

Simple Arithmetic Data

## Task 1

Task 1:

In this exercise you will create basic formulae involving simple calculations on a pair of values. The sums involved are intentionally simple to allow you to check that your answers are correct using a little mental arithmetic.

Enter the data shown opposite into a new blank workbook. Leave the cells containing the word formula empty for now:

1. Enter a formula to add together the contents of cells B3 and B4. Place the result in B6.
2. Enter a formula to subtract the contents of cells B4 from B3. Place the result in cell B7.
3. Enter a formula to multiply the contents of cell B3 by B4. Place the result in cell B8.
4. Enter a formula to divide the contents of cell B3 by B4. Place the result in B9.

Project B

Value 1

Value 2

Add subtract Multiply Divide

**Holiday Costs**

4 2 6

2 1 3

6 **3 9**

2 **1 3**

8 **2 18**

2 **2 2**

1. Do a quick check that your answers are correct, then save the file as maths.xls in the intro-formulae

Task 2:

Open the maths.xls workbook created in the previous exercise and go to Sheet 1.

**Task 2**

1. Modify the worksheet by adding two new sets of values as shown below in cells C3, C4, D3, and D4.
2. Copy each of the formulae in column B to columns C and D.
3. Click in cell C6 and check that the formula is correct (when you click in the cell you will see the formula rather than the result). It should be =C3+C4.
4. Check that the copied formulae have done what you needed using a bit of mental arithmetic.

**Travel Costs**

Hotel Flight

Airport Taxes

**Sub Total Additional Costs**

Personal Insurance Car Hire

Petrol

Travellers Cheques

**Vienna**

960

250

25

**1235**

35

560

90

300

**Budapest**

400

200

20

**620**

25

240

80

450

**Paris**

400

105

29

**534**

18

470

75

500

**Rome**

740

220

33

**993**

10

360

80

200

**Geneva**

800

185

18

**1003**

42

290

65

150

1. Save and close the workbook.

# Exercise 2:

Exercise 2: Holiday costs

* 1. Create a new worksheet as shown below:
  2. Enter a formula in cell B8 to calculate the Sub Total of the Travel Costs. When you have entered this formula and are confident that it is correct, copy the formula to the other cells in the row (i.e. cells C8:F8).
  3. Enter a formula in cell B16 to calculate the Sub Total of the Additional Costs. Copy this formula to cells C16:F16.
  4. Enter a formula in cell B18 to calculate the Grand Total. Copy this formula to cells C18:F18.
  5. Save the file as holiday.xls in the r:\training.dir\excel\intro-formulae-functions folder.

**Sub Total**

**985**

**795**

**1063**

**650**

**547**

**Grand Total**

**2220**

**1415**

**1597**

**1643**

**1550**

#### WEEKS

1ST

2ND

3RD

4TH

5TH

6TH

7TH

8TH

9TH

10TH

11TH

**NEWSPAPER** TIMES OF INDIA TELEGRAM TIMES OF INDIA

HINDUSTAN TIMES THE INDIAN EXPRESS

THE MORUNG EXPRESS TIMES OF INDIA

TIMES OF INDIA HINDUSTAN TIMES THE INDIAN EXPRESS THE INDIAN EXPRESS

#### RETAIL $

**SOLD**

6

6

6

8

8

8

6

6

10

8

8

#### TOTAL SELL

20 **120**

23 **138**

22 **132**

46 **368**

45 **360**

66 **528**

87 **522**

56 **336**

90 **900**

90 **720**

87 **696**

# Exercise 3

Exercise 3: Newspaper sales

1. Open the workbook: news.xls.

This worksheet shows details of the volume of different newspapers sold over a period of 15 weeks together with the retail price of each of the newspapers available.

1. To improve the layout of the worksheet, insert a row between rows 9 and 10.
2. The data for Weeks 3 and 4 has been duplicated in error. Delete these two extra rows (i.e. rows 15 and 16).
3. Enter a formula to add up the number of Newspapers Sold over the 15 weeks.
4. In cell B27 use the AutoSum icon.
5. In cell C27 try typing the formula manually.
6. Check that the formula is correct and then copy it to the remaining columns.
7. Enter a formula in cell B28 to calculate the Total Sales using the retail prices given. Total Sales = Newspapers Sold \* Retail Price

12TH

13TH

14TH

15TH

TELEGRAM HINDUSTAN TIMES HINDUSTAN TIMES TIMES OF INDIA

6 88

10 78

10 88

6 90

**528**

**780**

**880**

**540**

(Note: make sure you use the appropriate retail price for each newspaper.)

Hint: If you are unclear how to create this formula, try substituting the relevant cell references into the formula exactly as it is given. For example, to calculate the Total Sales of The Chronicle use the formula:

Total Sales = Newspapers Sold \* Retail Price becomes: = B27\*B3

TOTAL NUMBER OF NEWSPAPER SOLD OVER THE 15 WEEKS 9. Copy the formula in cell B28 to cell C28.

15 WEEKS TOTAL SOLD

**976**

What happens? (Check the formula in cell C28).

1. Manually enter the correct formula into each of the cells C28:H28.
2. Save the worksheet with the new name news1.xls and close the file.
3. How would you consider changing the layout of this worksheet so that all formula could be copied

#### WEEKS

1ST

2ND

3RD

4TH

5TH

6TH

7TH

8TH

9TH

10TH

11TH

12TH

13TH

14TH

15TH

**NEWSPAPER** TIMES OF INDIA TELEGRAM TIMES OF INDIA

HINDUSTAN TIMES THE INDIAN EXPRESS

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TIMES OF INDIA HINDUSTAN TIMES THE INDIAN EXPRESS THE INDIAN EXPRESS TELEGRAM HINDUSTAN TIMES HINDUSTAN TIMES TIMES OF INDIA

#### RETAIL $

**SOLD**

6

6

6

8

8

8

6

6

10

8

8

6

10

10

6

#### AVERAGE MAXIMUM MINIMUM

**TOTAL SELL**

20 **120**

23 **138**

22 **132**

46 **368**

45 **360**

66 **528**

87 **522**

56 **336**

90 **900**

90 **720**

87 **696**

88 **528**

78 **780**

88 **880**

90 **540**

**503.2**

**900**

**120**

# Exercise 4

Exercise 1: Petty cash

Exercise 4 – Newspaper Sales

1. Open the workbook news1.xls that you created in a previous exercise.
2. Some simple statistical analysis (i.e. the average, minimum and maximum sales) is required for each of the newspapers. Insert the labels:

Average Minimum Maximum

after the Total Sales label in rows 30, 31 and 32 respectively.

1. Enter a formula to calculate the Average, Min and Max values for each of the different newspapers. Try:
   1. using the function wizard
   2. typing the formula yourself.

(Take care not to include the calculated values Newspapers Sold and Total Sales.)

1. Using the function wizard find yourself a suitable function to automatically return the current date. Insert this function in cell H1.
2. Save the worksheet as news2.xls and close it.

## Exercise 1

Petty Cash records

Coffee

Week1 Week2 Week3 Week4 Monthly Total

**Yearly Estimate**

4.3

3.5

0

0

### 7.8

##### *93.6*

Milk

2.5

1.9

3

2.8

### 10.2

##### *122.4*

Postage

3

5

4

2.5

### 14.5

##### *174*

Stationery

15

22

5

5

### 47

##### *564*

Weekly Total

**24.8**

**32.4**

**12**

**10.3**

**79.5**

##### *954*

1. Open the petty.xls workbook from the r:\training.dir\excel\intro-formulae-functions folder.
2. Apply a currency format with two decimal places to the data where appropriate.
3. Insert a row between rows 1 and 2 and remove the blank row 4.
4. Enter formulae to calculate the Weekly Total for each of the weeks.
5. Week 3 has been omitted in error. Insert a row and add the following data:

Milk Postage Stationery Week3 3.00 4.00 5.00

1. Copy the formula to this row.
2. Enter the formula to calculate the Monthly Total for each item.
3. During some weeks coffee is also purchased. Insert a new

column between Milk and Postage, and enter the heading Coffee, with the following data:

1. Copy the formulae for this column.
2. You have been asked to give a rough estimate of the total yearly out-going of petty cash. Insert a new label below Monthly Total called Yearly Estimate. Insert a formula in cell B9 to multiply the Monthly Total for

Milk by 12. Copy this formula across the remainder of the cells in this row.

1. Enter a label Grand Total in cell A10. Now SUM the Yearly Estimate row to calculate the grand total for the year. Place this total in cell B10.
2. Format the font to Comic Sans MS 12pt.

**Grand Total**

***1908***

1. Make the text in the row and column headings bold.
2. Set the width of each column to approximately width: 12.00.
3. Format the text in column A so that it wraps within the cells.
4. Centre the heading across columns A to F.
5. Add a heavy border around the outside of the table – apart from the heading i.e. A3:F10. Add horizontal lines between the rows containing the summary data (Monthly Total, Yearly Estimate and Grand Total).
6. Add a header to the worksheet to include the filename in the centre portion. Add a footer to include the date on the right, and your name on the left.
7. Centre the data both vertically and horizontally on the page, for printing.
8. Select to print row and column headings.
9. Print the worksheet and save it with the same name petty.xls.

# Exercise 2: Confectionery Sales

**Items**

Mars Bar Snicker Fuse

**Price**

0.29

0.32

0.3

**Number Sold**

Week 1

55

38

122

Week 2

Week 3

72

62

54

Week 4

65

44

98

**Total Sold**

70

59

84

**262**

**203**

**358**

**Sales**

**75.98**

**64.96**

**107.4**

**Sales in Euro**

**45.588**

**38.976**

**64.44**

Euro Exhange Rate

0.6

**Min Sold**

**Max Sold**

Exercise 2: Confectionery sales

1. Create a worksheet as shown below to record confectionery sales in the student refectory. The prices are given in British pounds.
2. Save the worksheet as sweets.xls in the r:\training.dir\excel\intro-formulae-functions folder.
3. Create a formula in the Total Sold column to calculate the total of each type of bar sold.

Kitkat Bounty Wispa

Total Sold per week

0.29

0.34

0.31

**Min Week 1**

98

65

48

**426**

**38**

**Min Week 2**

115

83

52

**438**

**52**

**Min Week 3**

90

65

35

**397**

**35**

**Min Week 4**

101

79

67

**460**

**59**

**404**

**292**

**202**

**1721**

**117.16**

**99.28**

**62.62**

**527.4**

**70.296**

**59.568**

**37.572**

**316.44**

##### *62.62*

***117.16*** Total Sold = number sold in week 1 + number sold in week 2 + number sold in week 3 + number sold in week 4

1. Create a formula in the Sales column to calculate the sales value of each type of chocolate bar sold. Sales = Total Sold \* Price
2. In the row Total Sold per Week, create a formula to calculate the total number of chocolate bars sold per week.

Total Sold per Week = Mars Bars + Snickers + Fuse + KitKat + Bounty + Wispa

1. Add two new rows at the bottom of the worksheet and label them Minimum Sold and Maximum Sold. Create formulae in these rows to calculate the minimum chocolate bars sold per week and the maximum

**Max Week 1**

**122**

**Max week 2**

**115**

**Max Week 3**

**98**

**Max week 4**

**101**

chocolate bars sold per week.

1. Format the figures in the column Price to currency with two decimal places, and the figures in the column Sales as integer (no decimals). Make all column titles bold.
2. Add one column to the right of the table, with the title: Sales in Euros.
3. Using the exchange rate 1 GBP = 0.60 EURO. (The prices shown in the worksheet are expressed in GBP). Create a formula to calculate Sales in EMU for each chocolate bar in the column.

Sales in EMU = Sales \* Exchange Rate (0.6)

1. Create a header with the text: College Confectionery Sales.
2. Print a copy of the worksheet.
3. Save the worksheet with the same name, sweets.xls and close it.