

Suggested Exercises for Spreadsheets

Exercise One

Possible activity for session plan one in suggested scheme of work.

Source data from ENGINES.CSV

Engines

Description	Price	Total Sold January
Irvine		
36 R/C ABC Heli	£74.99	3
40 R/C ABC MK III	£53.99	5
46 R/C ABC MK III	£62.99	2
53 R/C ABC	£71.95	6
FS 52 R/C Surpass	£169.99	0
20 Car Mk111	£71.99	2

Thunder Tiger

25 GP R/C	£35.95	9
42 GP R/C	£42.95	5
61 GP R/C	£62.95	8
Pro 25 R/C	£49.95	5
Pro 36 R/C	£63.95	2
Pro 46 R/C	71.95	7

Source data from RECEIVERS.CSV

Receivers

Description	Price	Total Sold January
27 Mhz Type		
2 Ch. mico non bec	£25.95	7
35 Mhz Type		
4 Ch. Feather	£21.95	13
5 Ch. Micro Single con	£26.95	6
5 Ch. Micro Dual con	£35.95	7
7 Ch. Dual con	£35.95	3
8 Ch. Dual con	£35.95	4
8 Ch. Dual con sup/slim	£41.95	7
40 Mhz Type		
3 Ch. Micro Single con	£25.95	1
3 Ch. Dual W/con dsc func	£30.95	13
4 Ch. Feather	£21.95	5
5 Ch. Micro Single con	£26.95	7
5 Ch. Micro Dual con	£35.95	6
7 Ch. Dual con	£35.95	2
8 Ch. Dual con	£35.95	15
8 Ch. Dual con sup/slim	£41.95	5
2 Ch Flash Pro (computer).FM	£119.95	13
2 Channel Ranger 2Z AM	£43.95	21
3 Ch. Ranger (dry)	£62.95	2
4 Ch. Focus (nicad)	£94.95	12
6 Ch. Focus (nicad)	£107.95	4

- import the file ENGINES.CSV into a suitable software package
- add a column with the heading 'Total Amount' after the column headed 'Total Sold January'
- insert a formula which calculates the Total Amount from the 'Total Sold January' and 'Price'
- replicate the formula for all records
- select all models of which 6 or more were sold in January
- arrange these into order with the most popular models at the top of each category
- save the file and obtain a printout of these, with a header of 'Most popular models for January', and a footer which includes today's date
- import the file RECEIVERS.CSV into a new spreadsheet
- for each frequency type, insert a cell which calculates the Total Sold
- add a column with the heading ' Total Amount' after the column headed 'Total Sold January'
- insert a formula which calculates the Total Amount from the 'Total Sold January' and 'Price'
- replicate the formula for all records
- for each frequency type insert a cell which calculates and displays the Grand Total
- save the file and obtain a printout, with a header of 'Receivers Sold in January', and a footer which includes today's date

Exercise Two

Possible activity for session plan two in suggested scheme of work.

- using the file RECEIVERS.CSV produced in exercise one, enter a tax rate of 17.5% into a cell, and label it appropriately
- after the column with the heading 'Price' add a column with the heading 'TAX' which will be used to calculate and display the amount of tax to be charged on each model, insert the required formula into the first appropriate cell, then replicate this for all records
- calculate and display TAX details where appropriate
- insert a new column with the heading 'No. of Channels' after the column headed 'Description', and for each receiver transfer any reference to the number of channels from the description column, into the new column
- add a title to the sheet which incorporates your name, today' s date and the text 'January Totals'
- save the file and obtain a printout
- calculate and display in another part of the spreadsheet, the average number sold of each channel type
- arrange this information into order, with the most popular at the top of the list
- save the file and obtain a printout

Exercise Three

Possible activity for session plan three in suggested scheme of work.

Your company takes audit of its stock position every 6 months; you are responsible for keeping a spreadsheet up-to-date with the current stock position and value of stock on hand.

Design a spreadsheet using the following headings and data. Create a second spreadsheet that holds a table to calculate Depreciation over a 6-month period.

- complete the Category cells by splitting the Order Code into text and the last 4 numbers
- calculate the Stock Level
- calculate depreciation using Lookup table in the other spreadsheet
- calculate the Stock Value
- using an IF function place a statement in the Order column as to whether to re-order stock - this could be if stock is 15 items or less
- calculate the totals for Stock Value
- work out the Average Age of Stock
- count the number of items of stock
- give instructions on formatting data in the spreadsheet (font, numeric, currency, emphasis)

CATEGORY	ORDER CODE	AGE OF STOCK	STOCK IN	STOCK OUT	STOCK LEVELS	GROSS PRICE	DEPRECIATION	STOCK VALUE	ORDER
	GYM1923	6	75	50		8.25			
	GYM1932	3	14	5		11.90			
	GYM1941	2	52	34		13.25			
	GYM1954	5	35	21		20.60			
	SWIM0127	3	350	276		1.50			
	SWIM0128	2	250	189		2.26			
	SWIM0129	1	100	87		5.00			
	SWIM0130	3	92	61		3.84			
	SWIM0131	5	530	478		1.92			
	EXER1451	6	47	20		5.00			
	EXER1461	3	64	15		15.00			
	EXER1471	4	51	3		25.00			
	EXER1483	4	31	5		47.00			
	EXER1494	5	40	10		94.00			
	EXER1502	3	65	45		289.00			
	EXER1513	6	81	68		33.00			
	EXER1524	2	72	25		59.00			
	EXER1535	2	46	45		99.00			
	EXER1542	6	83	63		190.00			

Print the spreadsheet with instructions on orientation and display.

Instruct students to extract part of the date and save separately.

Exercise Four

Possible activity for session plan four in suggested scheme of work

Create a spreadsheet to calculate the cost of buying a car, continue with the data to cover 3 years. This will have areas that can be used for Lookup - depreciation; Absolute reference - APR%, Value

- calculate the Loan needed after the deduction of the Part Exchange and the 10% deposit
- work out the interest paid on the loan over a 3-year period - based on the flat rate per annum
- calculate the actual cost of a 3-year loan and the car's value after 3 years

CAR LOAN REPAYMENT TABLE

		Repayment Date	Year	Interest Paid	Loan Paid	Total Paid	Depreciation	Value
Date	01/12/99	01/12/99	1					
Value New	21,450.00	01/01/00	1					
Part Exchange	5,250.00	01/02/00	1					
Less 10% Deposit		01/03/00	1					
Sub Total - Loan		01/04/00	1					
Period (years)	3	01/05/00	1					
APR %	11.11	01/06/00	1					
Flat Rate %	4.89	01/07/00	1					
Loan Amount		01/08/00	1					
Interest		01/09/00	1					
Total		01/10/00	1					
Monthly Payment		01/11/00	1					
		01/12/00	2					
		01/01/01	2					

Depreciation Table
Years

1	0.53%
2	0.62%
3	0.71%

Once the spreadsheet is set up work out different rates of interest or different car values and how this will affect the repayment figure.

- find out what the actual Depreciation rate is on different cars and amend the figures to reflect these rates

Open the following spreadsheet inputting the date (amend the date on the Invoice Date column to be within the last month with some exceptions)

- calculate the days the accounts are overdue using an absolute reference
- naming the range of cells holding the Lookup data use this to calculate the discount given
- generate a message if the accounts are overdue by more than 30 days to telephone the customer, otherwise to take no action