

Product	Pk Size	Our Price	RSP	Price	VAT	Code	Units	Price/unit	UP+VAT
1917 Imperial Vodka	70cl	£9.44	£9.39	£43.09	20%	028-55	6	£7.18	£8.62
6 Pack Snack		£0.69		£5.63	20%	Bobby's	12	£0.47	£0.56
7 Up	330ml	£0.43	£0.40	£6.55	20%	101-60	24	£0.27	£0.33
Abbot Ale	440ml	£1.31	£1.29	£20.49	20%	024-25	24	£0.85	£1.02
After Eight Mints	250g	£2.25	£2.25	£18.79	20%	104-42	12	£1.57	£1.88
Alberto Balsam Shampoo	400ml	£1.45	£1.39	£5.85	20%	304-57	6	£0.98	£1.17
Alpen Original	375g	£1.31	£1.25	£5.99	0%	081-59	6	£1.00	£0.31
Always Normal Plus	16	£2.55	£2.55	£18.29	20%	446-31	12	£1.52	£1.83
Ambrosia creamed rice pudding	425g	£0.75	£0.67	£13.69	0%	058-04	24	£0.57	£0.57
Ambrosia Devon Custard tetra	532ml	£1.03	£0.98	£9.47	0%	443-45	12	£0.79	£0.79
Anadin	4	£0.44	£0.44	£13.99	20%	000-43	48	£0.29	£0.35
Anadin Extra	12	£1.39	£1.39	£10.89	20%	132-26	12	£0.91	£1.09
Anadin paracetamol	24	£1.80	£1.80	£14.19	20%	514-80	12	£1.18	£1.42
Anchor Cream Swirls		£1.99	£1.99	£18.99	0%	SK5482	12	£1.58	£1.58
Andrews liver salts	113g	£1.95	£1.95	£15.59	20%	114-26	12	£1.30	£1.56
Andrexx toilet rolls snowdrop	2	£1.29	£1.25	£19.89	20%	109-29	20	£0.99	£1.19
Andrexx toilet rolls snowdrop	4	£2.35	£2.35	£18.45	20%	074-21	10	£1.85	£2.21

If we had wanted to sort on a different column – say list products in descending selling price order, then we would choose 'Custom Search' as shown below

Our Price	RSP	Price	VAT	Code	Units	Price/unit	UP+VAT
£12.59	£12.55	£113.09	20%	171-51	12	£9.42	£11.31
£12.49	£12.49	£58.49	20%	303-61	6	£9.75	£11.70
£12.39	£12.29	£116.29	20%	171-06	12	£9.69	£11.63
£12.20	£11.39	£55.69	20%	171-01	6	£9.28	£11.14
£12.20	£11.75	£57.19	20%	779-08	6	£9.53	£11.44
£12.19	£11.99	£114.19	20%	170-44	12	£9.52	£11.42
£12.09	£11.55	£56.69	20%	170-50	6	£9.45	£11.34
£11.49	£10.99	£101.89	20%	172-05	12	£8.49	£10.19
£11.49	£11.29	£51.99	20%	170-41	6	£8.67	£10.40
£10.35	£10.25	£47.45	20%	172-10	6	£7.91	£9.49
£9.44	£9.39	£43.09	20%	028-55	6	£7.18	£8.62

Note that as with all storage and retrieval of data, performance is limited by the quality of the data entered. In the above example, there were other entries for Coca Cola which were not found because of spelling mistakes or extra detail, for example 'pmp Coca Cola' (promotional marked price) which would come under 'p'!

In addition to standard arithmetic functions such as add, subtract, multiply and divide, Excel has a large range of mathematical functions. We have already seen how the most common one - SUM - is used. They all follow the same basic syntax, ie. =function (AA1:BB20). They include SUM, PRODUCT, AVERAGE, STDEV (standard deviation), GEOMEAN etc. For more details look at the Help menu.

Then there are a collection of operators, commands which can be entered into the Formula Bar, which can supply information based on cell contents. These include functions like COUNT, IF, AND, TRUE, FALSE, OR etc. For full details of these functions see the Help menu. As an example we will look at the 'IF' function.

Suppose, in our shop example, we wish to have an extra column in which we want to display a warning message if we are selling a product for less than its recommended selling price. We need to be able to compare the cells in columns C and D (our price and RSP respectively) and place a message against that row if C is less than D. The general format for such a 'formula' is

=IF(condition, action if true, action if false)

so in this case we can rewrite this as

=IF(Our Price < RSP, display 'wrong price' message, display 'OK' message)

or specifically for row 2

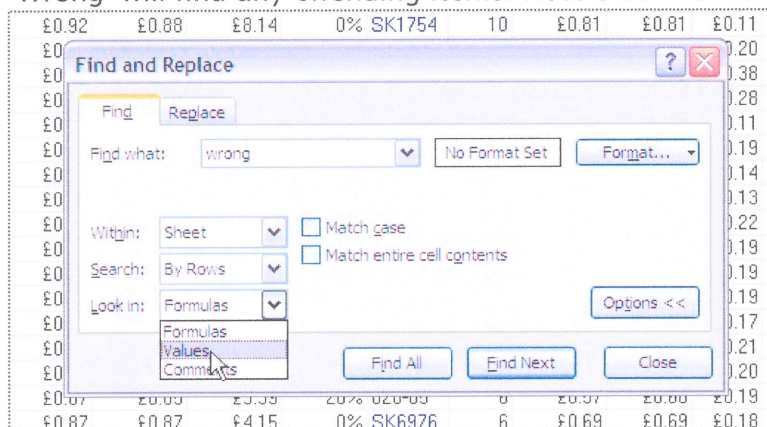
=IF(C2 < D2, "Wrong Price", "OK")

C	D	E	F	G	H	I	J	K	L	M	N
Our Price	RSP	Price	VAT	Code	Units	Price/unit	UPr+VAT	Unit profit	% Profit		
£12.59	£12.55	£113.09	20%	171-51	12	£9.42	£11.31	£1.28	10.17	=IF(C2<D2,"Wrong Price","OK")	
£12.49	£12.49	£58.49	20%	303-61	6	£9.75	£11.70	£0.79	6.34		

This is then copied down the entire set of data. Then a simple search for the word

329	375g	£0.84	£0.83	£5.65	20%	638-96	10	£0.57	£0.68	£0.16	19.29	OK
330	375g	£0.84	£0.83	£5.65	20%	638-97	10	£0.57	£0.68	£0.16	19.29	OK
331	375g	£0.84	£0.83	£5.65	20%	638-99	10	£0.57	£0.68	£0.16	19.29	OK
332	440ml	£0.76	£0.79	£12.99	20%	166-20	24	£0.54	£0.65	£0.11	14.54	Wrong Price
333	1lb	£0.84	£0.68	£8.40	0%	SK0088	15	£0.56	£0.56	£0.28	33.33	OK
334	420g	£0.83	£0.80	£7.95	0%	296-25	12	£0.66	£0.66	£0.17	20.18	OK
335	415g	£0.83	£0.83	£8.09	0%	024-51	12	£0.67	£0.67	£0.16	18.78	OK
336	1kg	£0.83	£0.79	£7.49	0%	293-27	10	£0.75	£0.75	£0.08	9.76	OK

'Wrong' will find any offending items. Note that in order to avoid finding the word 'Wrong' in every row (because its in the formula for each cell in the column) it is necessary to select 'Values' from the 'Look In' box in the 'Find' window.



Functions can be 'nested' inside each other, for example we could write

=IF(C2 < D2, "Wrong Price", IF(L2 < 5, "Unprofitable", "OK"))

where we are saying that if C2 is less than D2 (Our price is less than the RSP) then write the words "Wrong Price", if it is not less than the RSP then if the profit (L2) is less than 5 then write the word 'Unprofitable' otherwise write 'OK'.

Cabbury Milk May	227g	£3.75	£2.85	£24.89	20%	103-41	12	£2.07	£2.49	£0.66	20.98	OK
MHV Liebfraumilch	75cl	£3.15	£2.79	£12.19	20%	467-14	6	£2.03	£2.44	£0.71	22.60	OK
MHV Valencia Medium White	75cl	£3.15	£2.95	£12.19	20%	467-83	6	£2.03	£2.44	£0.71	22.60	OK
Benson & Hedges King size	20	£3.12	£3.12	£25.46	20%	163-30	10	£2.55	£3.06	£0.06	2.04	Unprofitable
Marlboro Kingsize	20	£3.12	£3.12	£25.47	20%	164-06	10	£2.55	£3.06	£0.06	2.04	Unprofitable
Marlboro Lights Kingsize	20	£3.12	£3.12	£25.47	20%	772-13	10	£2.55	£3.06	£0.06	2.04	Unprofitable
Rothmans King Size	20	£3.12	£3.12	£25.47	20%	164-37	10	£2.55	£3.06	£0.06	2.04	Unprofitable
Silk Cut Kingsize	20	£3.12	£3.12	£25.46	20%	164-40	10	£2.55	£3.06	£0.06	2.08	Unprofitable
Silk Cut Kingsize Ultra Low	20	£3.12	£3.12	£25.46	20%	457-14	10	£2.55	£3.06	£0.06	2.08	Unprofitable
Embassy No1 King Size	20	£3.10	£3.10	£25.29	20%	163-51	10	£2.53	£3.03	£0.07	2.10	Unprofitable
Cafe Hag decaff	100g	£3.09	£2.83	£14.79	0%	755-54	6	£2.47	£2.47	£0.63	20.23	OK
Optrex with eye bath	110ml	£3.09	£3.09	£12.15	20%	793-88	6	£2.03	£2.43	£0.66	21.36	OK
Rothmans Royals Kingsize	24	£3.09	£3.09	£25.69	20%	068-67	10	£2.57	£3.08	£0.01	0.23	Unprofitable
Rothmans Royals Lights Kingsize	24	£3.09	£3.09	£25.69	20%	068-68	10	£2.57	£3.08	£0.01	0.23	Unprofitable