

## Section 3 – Adding Mean and Grades (1 mark)

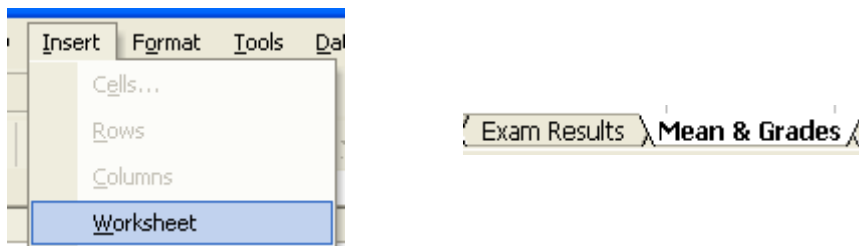
In this section you will:

- Add a new worksheet
- Add a row for the mean for each subject and create a formula
- Add a column for student grades and create a formula
- Add a “Grades” table
- Learn how to use a VLOOKUP (vertical look up formula)

### 1. Adding a new work sheet

Copy the Exam Results spreadsheet onto a new worksheet. To do this, add a worksheet by selecting **Insert**, then **Worksheet**. Move this sheet so it is to the right of the **Exam Results** worksheet. Rename it **Mean & Grades**.

Make sure you paste from **CELL A1**.



### 2. Adding the Mean for each subject

Use the decrease decimal icon to make whole numbers

Highlight the cells in row 15 to column F and use Edit / Fill / Right

Add a title 'Mean' in cell A15

Type this formula in cell B15:  
=AVERAGE(B4:B13)

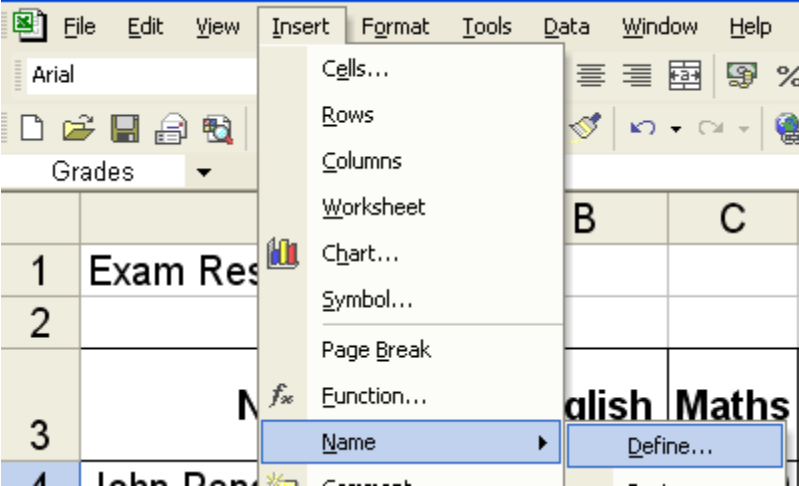
	English	Maths	Science	Total	Pupil Average	
4				73	196	65
5				9	88	29
6				89	254	85
7				44	134	45
8				49	144	48
9				60	168	56
10		75	71	68	214	71
11		22	27	21	70	23
12	Terry Williams	64	58	85	188	63
13	Gina Elliot	66	72	73	211	70
14						
15	Mean	58				

### 3. Working out an overall grade for each student

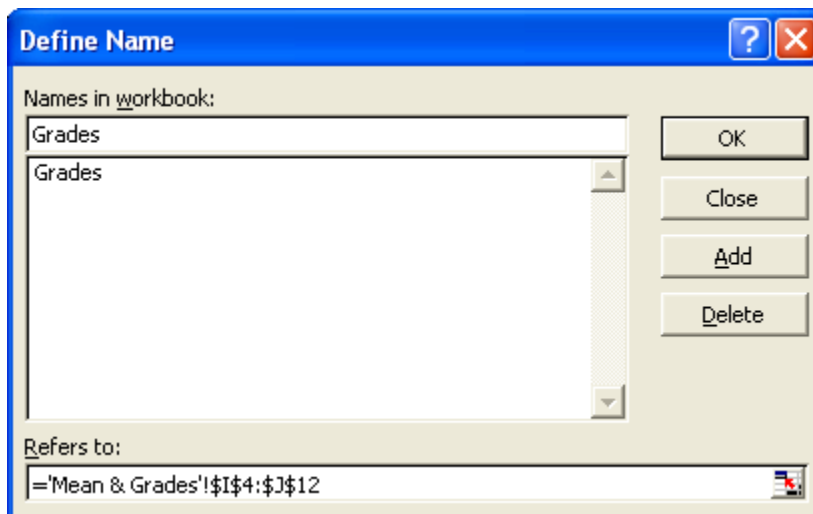
a. To do this we must first create and add a lookup table on the sheet.

Type in the following into cells I3 to J12:

I	J
<b>Gradelist</b>	
0	U
15	G
25	F
35	E
45	D
55	C
65	B
75	A
85	A*



- Highlight data area only
- Click on Insert / Name / Define
- Type in **Grades** as the name for the defined area.

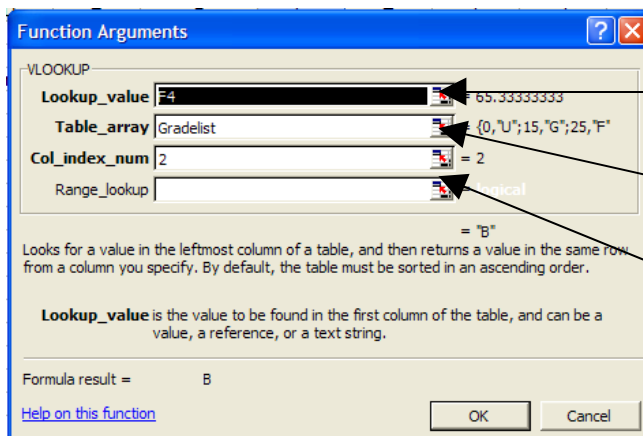


Click on **File** and **Save** to update your file.

- b. Click on CELL G4 and click in the formula bar. Type the following formula:  
**=VLOOKUP(F4,Gradelist,2)**

**Alternative: Working out an overall grade for each student (using the fx wizard)**

Click on  and select VLOOKUP and type the details into the table:



What does it mean?

This is the cell that will be 'Looked up' (F4).

This is where the value in F4 will be matched (Gradelist).

This means it will refer to this value according to what is in column 2).

The matched grade is placed in CELL G4.

- Now make sure to replicate the formula down the column using CTRL D.
- You can check this by clicking on **Tools**, then click on **Options**, then click on **Formulas**.
- To return to normal view click on **Tools**, then click on **Options**, then **Formulas** again.

Grade
=VLOOKUP(F4,Gradelist,2)
=VLOOKUP(F5,Gradelist,2)
=VLOOKUP(F6,Gradelist,2)
=VLOOKUP(F7,Gradelist,2)
=VLOOKUP(F8,Gradelist,2)
=VLOOKUP(F9,Gradelist,2)
=VLOOKUP(F10,Gradelist,2)
=VLOOKUP(F11,Gradelist,2)
=VLOOKUP(F12,Gradelist,2)
=VLOOKUP(F13,Gradelist,2)

- Add your name as a header to **Mean & Grades**
- Add a footer **Printout No 2**, the date and **Mean & Grades** and label it as showing 'VLOOKUP table for calculating grades' and 'Average mark for each subject and overall student grades'.

NB. You can do the same to check any other formulas you have added. Check your Total, Student Average and Mean formulas now, if you haven't done so before.

This is what your spreadsheet should look like now:

	A	B	C	D	E	F	G	H	I	J
1	Exam Results Year 10									
2										
3	<b>Name</b>	<b>English</b>	<b>Maths</b>	<b>Science</b>	<b>Total</b>	<b>Pupil Average</b>	<b>Grades</b>		<b>Gradelist</b>	
4	John Pender	63	60	73	196	65	B		0	U
5	Ann Gunn	47	32	9	88	29	F		15	G
6	Don Brooks	80	85	89	254	85	A		25	F
7	Chris Daniels	39	51	44	134	45	E		35	E
8	Vivian Smith	45	50	49	144	48	D		45	D
9	Brenda Curtis	48	60	60	168	56	C		55	C
10	Tim Guest	75	71	68	214	71	B		65	B
11	James Trevorrow	22	27	21	70	23	G		75	A
12	Terry Williams	64	58	66	188	63	C		85	A*
13	Gina Elliot	66	72	73	211	70	B			
14										
15	Mean	58	59	58	175	58				
16										
17										
18										
19										
20										

This is a lookup table. The Grade in column J is matched to the average % in column F.

Add a text box and explanation of how the lookup table works.

Check everything is correct. Print out this sheet and hand in for marking.

Congratulations. You have completed section 3. Go to section 4.