

## Section 8 – Investigating a change to a formula (1 mark)

In this section you will:

- Add a column for realistic ICT results for each student.
- Change the formulas in the Total and Student Average columns.
- Make a screen dump of your changes shown as formulas.
- Type a report in a text box of your findings.

### 1. Adding ICT results

- Insert a new worksheet and rename it ‘Formula Change’.

Chart \ Data Change \ **Formula Change** \

- Copy the table from the Data Change worksheet, columns A to G and paste it onto your new worksheet (from cell A1).
- Click on the ‘E’ of column E, select Insert / Column.
- Add a text label ICT and then realistic, sensible data for each student’s exam mark.
- **Change of Formula:**
  - You need to check that the Total formula has included the ICT results. If not, change it.
  - You will need to change the Student Average formula to allow for 4 exam subjects instead of 3.
- **Add a screen dump of your changed formulas:**
  - Select Tools / Options / check Formulas / OK.
  - Make a screen dump of the Total and student average columns
  - Change the worksheet back to value view.
  - Copy and paste the formulas onto your worksheet as evidence.

	Name	English	Maths	Science	ICT	Total	Pupil Average	Grade	Total	Pupil Average
3										
4	John Pender	63	60	73	68	264	66	B	=B4+C4+D4+E4	=F4/4
5	Ann Gunn	47	32	49	40	168	42	E	=B5+C5+D5+E5	=F5/4
6	Don Brooks	80	85	89	88	342	86	A*	=B6+C6+D6+E6	=F6/4
7	Chris Daniels	39	51	44	56	190	48	D	=B7+C7+D7+E7	=F7/4
8	Vivian Smith	45	50	49	44	188	47	D	=B8+C8+D8+E8	=F8/4
9	Brenda Curtis	48	60	60	54	222	56	C	=B9+C9+D9+E9	=F9/4
10	Tim Guest	75	71	68	63	277	69	B	=B10+C10+D10+E10	=F10/4
11	James Trevorrow	22	27	21	24	94	24	G	=B11+C11+D11+E11	=F11/4
12	Terry Williams	64	58	66	51	239	60	C	=B12+C12+D12+E12	=F12/4
13	Gina Elliot	66	72	73	70	281	70	B	=B13+C13+D13+E13	=F13/4

- **Explain what you did: (Use a text box for word processing).**
  - Inserted a column calling it ICT.
  - Added realistic, sensible results.
  - Changed the total & average formulas.
  - Noted the automatic update and any changes to grades.
- **Explain why you did this:**
  - It was necessary to add the ICT results as the teachers wanted to see the difference it made to the overall grades of each student.
  - Was there any difference in any student grades?
  - What conclusion would you give following this investigation?

- **Footer**
  - i. Left - **Printout No.8.**
  - ii. Middle - Date.
  - iii. Right - ***Change of formula and further investigation – ICT results.***

Microsoft Excel - Exam results 06-07.xls

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Your name Exam Results

Exam Results Year 10

Name	English	Maths	Science	ICT	Total	Pupil Average	Grade	Total	Pupil Average
John Pender	63	60	73	68	264	66	B	=B4+C4+D4+E4	=F4/4
Ann Gunn	47	32	49	40	168	42	E	=B5+C5+D5+E5	=F5/4
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**Change of Data**  
Expain what you did - (ICT results added)

**Change of Formula**  
Explain that you checked the formulas for T & PA, and altered them accordingly.

**Conclusion**  
Check any changes in grades as a result of ICT results.

Printout No.8 11/09/2006 Change of formula to pupil total and pupil average

Preview: Page 1 of 1 NUM

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

Congratulations. You have completed section 8. Go to section 9.