

ACTIVITY 50: TEACHER'S GRADE BOOK

New Skills Reinforced:

In this activity, you will practice how to:

1. use the Median and Mode functions.
2. use multiple conditions in formulas to determine a desired result.

Activity Overview:

Assume that your computer teacher has asked you for help in setting up a spreadsheet to organize and calculate grades. The students have handed in three homework assignments and have taken four tests so far this semester.

In this activity, you will create a spreadsheet that calculates student's averages, determines whether a student passes or fails, and determines the letter grade students receive based on a conditional statement. For a student to PASS, his or her numerical average must be greater than or equal to 59.50. To determine the letter grade for each student, use the chart provided below.

Numerical Grade	Letter Grade Equivalent
Greater than or equal to 89.50	A
Greater than or equal to 79.50	B
Greater than or equal to 69.50	C
Greater than or equal to 59.50	D
Less than 59.50	F

In addition to using previously practiced skills, you will be using the MODE and MEDIAN functions. Each of these functions is defined below with respect to what each function yields in this activity.

MODE Calculates the most frequently achieved numerical grade for each assignment or test.

MEDIAN Calculates the numerical grade that falls in the middle of each assignment or test.

Instructions:

1. Create a NEW spreadsheet.
Note: Unless otherwise stated, the font should be set to Arial, the font size to 10 point.
2. Type the data as shown.
3. Bold cell A1 and row 2.
4. Bold and underline row 3.
5. Format the width of columns A and B to 14.0 and left align.
6. Format the width of columns C – K to 8.0, column L to 10.0, and column M to 8.0.
7. Center align columns C – M.
8. Bold rows 41 – 45.
9. Format cells C5 – K45 as numbers displaying 0 decimal places.

10. Input the formulas for the first student as follows:

- a. In cell F5, the HW AVG (Homework Average), type **=AVERAGE(C5:E5)**
- b. In cell K5, the NUM. AVG (Numerical Average), type **=AVERAGE(F5:J5)**
- c. In cell L5, PASS/FAIL, type **=IF(K5>=59.5,"PASS","FAIL")**
- d. In cell M5, the LETTER GRADE, type
=IF(K5>=89.5,"A",IF(K5>=79.5,"B",IF(K5>=69.5,"C",IF(K5>=59.5,"D",IF(K5<59.5,"F")))))

NEW SKILL

11. Use the AutoFill feature to copy the formulas down for the remaining students.

12. Input the formulas for the AVERAGE, MAXIMUM, MINIMUM, MODE, and MEDIAN functions as follows:

- a. In cell C41, the AVERAGE, type **=AVERAGE(C5:C39)**
- b. In cell C42, the MAXIMUM, type **=MAX(C5:C39)**
- c. In cell C43, the MINIMUM, type **=MIN(C5:C39)**
- d. In cell C44, the MODE, type **=MODE(C5:C39)**
- e. In cell C45, the MEDIAN, type **=MEDIAN(C5:C39)**

NEW SKILL**NEW SKILL**

13. Use the AutoFill feature to copy the formulas across to column K for the remaining homeworks (HW) and TESTS.

14. Insert a header that shows:

- a. Left Section Activity 50-Student Name
- b. Center Section TEACHER'S GRADE BOOK
- c. Right Section Current Date

15. Insert a footer that shows:

- a. Center Section PAGE number

16. Display formulas in your spreadsheet by using <CTRL> + ` to check for accuracy.

17. Carefully proofread your work for accuracy.

18. Save the spreadsheet as TEACHER'S GRADE BOOK.

19. Analyze the changes made to the data in the spreadsheet.

20. Set the Print Area to include all cells containing data in the spreadsheet.

21. Print Preview and adjust the Page Setup so that the spreadsheet fits on one page. Set the page orientation to landscape.

22. Print a copy of the spreadsheet if required by your instructor.

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	MY TEACHER'S GRADE BOOK												
2						HW					NUM.		LETTER
3	LAST	FIRST	HW 1	HW 2	HW 3	AVG	TEST 1	TEST 2	TEST 3	TEST 4	AVG	PASS/FAIL	GRADE
4													
5	Allen	Casida	75	0	80		85	90	83	78			
6	Begum	Marvin	75	70	0		55	87	49	38			
7	Caines	Kevin	75	75	80		49	65	78	65			
8	Campbell	Jefferson	85	90	90		97	87	85	91			
9	Cheung	Alex	75	80	85		100	95	85	90			
10	Chu	Daisy	75	80	85		70	65	64	70			
11	Duong	Jimmy	60	0	60		50	63	78	67			
12	Francois	Dana	90	95	95		98	87	91	93			
13	Glicksman	Rudy	75	0	70		97	88	92	93			
14	Gondal	Mohammed	85	80	85		87	68	75	55			
15	Harper	Jonathan	70	85	80		87	65	54	87			
16	Jiang	Shirley	80	80	85		93	87	80	75			
17	Khan	Arita	0	60	0		55	45	36	60			
18	Kharkover	Arbiana	75	80	85		87	98	79	83			
19	Kizima	Sofi	85	85	80		73	65	63	71			
20	Lau	Allison	75	80	80		87	54	69	78			
21	Leung	Helen	95	90	95		85	98	98	98			
22	Mattison	Gavin	60	70	65		68	78	78	78			
23	Minauro	Rebekah	50	0	65		65	65	65	65			
24	Mui	Shien	70	65	0		65	70	55	62			
25	Noelus	Gerald	85	80	85		78	87	82	87			
26	Osman	Kennon	90	95	90		90	95	85	47			
27	Rahman	Khubaib	80	90	95		95	100	98	92			
28	Reyes	Kali	90	70	75		78	87	60	69			
29	Sabine	Joseph	75	90	85		98	75	78	87			
30	Shien	Shabbaz	85	90	75		80	65	64	65			
31	Shulovsky	Yulia	90	70	80		78	63	78	78			
32	Skobeleva	Faisal	100	95	95		98	87	91	100			
33	Teo	Diana	75	80	70		65	85	50	78			
34	Wang	Timothy	75	80	75		69	45	36	45			
35	Wong	Liping	80	85	90		78	90	97	98			
36	Xue	Jenny	90	95	100		98	97	87	87			
37	Yan	Zhi Xian	95	100	90		88	98	89	78			
38	Zheng	Dana	80	80	85		78	75	76	87			
39	Zhu	Karl	85	80	80		82	84	86	80			
40													
41	AVERAGE												
42	MAXIMUM												
43	MINIMUM												
44	MODE												
45	MEDIAN												