# **MS Excel Exercise #4: Monthly Budget**

In this exercise you will be creating a Budget Spreadsheet that can be used to calculate your monthly and annual expenses. This type of spreadsheet is a very valuable tool as it can not only be used to track expenses but can be used to help you get a better understanding of what it is going to cost you to live and whether or not your current income will support your needs and wants.

- 1. Begin by opening up a new worksheet in Microsoft Excel.
- 2. Copy the following spreadsheet exactly as show below. Use the same rows and columns as shown. Enter in the category headings and the amounts of money spent for each day in each category.

	A	В	С		D	E		F		G		Н		1		J		K		L		М	1	N	
1	Monthly Expenses Budget																								
2																									
3		Jan	Feb	1	Mar	Apr	M	ау	Jui	n	Jul		Au	Ig	Se	р	Oct		No	v	De	c .	Tota	ls	
4	INCOME	2,200.00	2,200	.00	2,200.00	2,200.0	D	2,200.00		2,200.00		2,200.00		2,200.00		2,200.00		2,200.00		2,200.00		2,200.00	\$	-	
5																									
6	EXPENSES																								
7	Housing																								
8	Rent	\$ 565.00	\$ 565.	00	\$ 565.00	\$ 565.00	\$	565.00	\$	565.00	\$	565.00	\$	565.00	\$	565.00	\$	565.00	\$	565.00	\$	565.00	\$	-	
9	Electric	\$ 125.00	\$ 120.	00	\$ 110.00	\$ 90.00	\$	60.00	\$	50.00	\$	50.00	\$	50.00	\$	60.00	\$	80.00	\$	110.00	\$	115.00	\$	-	
10	Water/Sewer	\$ 45.00	\$ 41.	00	\$ 48.00	\$ 38.00	\$	46.00	\$	42.00	\$	41.00	\$	38.00	\$	42.00	\$	44.00	\$	48.00	\$	45.00	\$	-	
11	Garbage	\$ 20.00	\$ 20.	00	\$ 20.00	\$ 20.00	\$	20.00	\$	20.00	\$	20.00	\$	20.00	\$	20.00	\$	20.00	\$	20.00	\$	20.00	\$	-	
12	Auto																								
13	Payment	\$ 238.00	\$ 238.	00	\$ 238.00	\$ 238.00	\$	238.00	\$	238.00	\$	238.00	\$	238.00	\$	238.00	\$	238.00	\$	238.00	\$	238.00	\$	-	
14	Insurance	\$ 125.00	\$ 125.	00	\$ 125.00	\$ 125.00	\$	125.00	\$	125.00	\$	125.00	\$	125.00	\$	125.00	\$	125.00	\$	125.00	\$	125.00	\$	-	
15	Gas	\$ 150.00	\$ 145.	00	\$ 180.00	\$ 150.00	\$	160.00	\$	160.00	\$	160.00	\$	155.00	\$	145.00	\$	150.00	\$	145.00	\$	150.00	\$	-	
16	Repairs	\$ 45.00	\$ 45.	00	\$ 45.00	\$ 45.00	\$	45.00	\$	45.00	\$	45.00	\$	45.00	\$	45.00	\$	45.00	\$	45.00	\$	45.00	\$	-	
17	Food																								
18	Groceries	\$ 235.00	\$ 235.	00	\$ 235.00	\$ 235.00	\$	235.00	\$	235.00	\$	235.00	\$	235.00	\$	235.00	\$	235.00	\$	235.00	\$	235.00	\$	-	
19	Eating Out	\$ 40.00	\$ 40.	00	\$ 60.00	\$ 40.00	\$	40.00	\$	40.00	\$	40.00	\$	40.00	\$	40.00	\$	40.00	\$	80.00	\$	40.00	\$	-	
20	Household																								
21	Cell Phone	\$ 50.00	\$ 50.	00	\$ 50.00	\$ 50.00	\$	50.00	\$	50.00	\$	50.00	\$	50.00	\$	50.00	\$	50.00	\$	50.00	\$	50.00	\$	-	
22	Cable/Internet	\$ 58.00	\$ 58.	00	\$ 58.00	\$ 58.00	\$	58.00	\$	58.00	\$	58.00	\$	58.00	\$	58.00	\$	58.00	\$	58.00	\$	58.00	\$	-	
23	Medical																								
24	Insurance	\$ 200.00	\$ 200.	00	\$ 200.00	\$ 200.00	\$	200.00	\$	200.00	\$	200.00	\$	200.00	\$	200.00	\$	200.00	\$	200.00	\$	200.00	\$	-	
25	Other	\$ 60.00	\$ 50.	00	\$ 50.00	\$ 50.00	\$	50.00	\$	50.00	\$	50.00	\$	50.00	\$	50.00	\$	60.00	\$	50.00	\$	60.00	\$	-	
26	Clothing																								
27	Work Related	\$ 150.00			\$ 100.00				\$	35.00					\$	90.00			\$	60.00	\$	20.00	\$	-	
28																									
29	Fun!	\$ 100.00	\$ 80.	00	\$ 140.00	\$ 100.00	\$	50.00	\$	90.00	\$	130.00	\$	110.00	\$	95.00	\$	80.00	\$	180.00	\$	150.00	\$	-	
30																									
31	EXPENSES =	\$ -	\$ -		\$ -	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	
32	SAVINGS =	\$ -	\$ -		\$ -	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-			
22																									

- 3. In Column N, enter formulas that calculate the total annual (12 months) income and expenses for each category.
- 4. In **Row 31**, enter formulas that calculate the total expense amounts for each Month. (Note that Row 4 is income and not an expense!!)
- 5. In Row 32, enter formulas that calculate the amount of money saved each month. This would be determined by subtracting your Monthly Expenses from your Monthly Income. Use Conditional Formatting to format the Savings cells so that if the number is a negative it is RED and in (PARENTHESIS). Example: (\$ 554.00) But, if the number is positive, it will appear BLACK and BOLD and without brackets.
- 6. In **Cell N34**, Create a formula that will calculate your Annual Savings Balance. This would be determined by subtracting your total annual income from your total annual expenses, and represents the amount of money

you have saved during the year OR the amount you are in DEBT!!! Add the same conditional formatting that you did in step 5.

- 7. All numbers in your spreadsheet should be considered to be **CURRENCY** and formatted to appear with dollar signs (\$) and with **two decimal** places. Example: \$ 1200.50
- 8. Save the workbook in your Excel folder as Review\_Ex. 4

## **MS Excel Exercise #5: Travel Expenses**

In this lesson you will again be creating a spreadsheet that may look a bit more complex but actually uses simple formulas and functions that you have already used in previous lessons.

Assume that you are a member of the National Honor Society and the club just returned from a multi-day field trip. You were given a \$600.00 budget to spend on transportation, motel expenses, food, and entertainment. Your club advisor asked for an accounting of your expenditures and for you to return any club money that you did not spend.

- 1. Begin by opening up a new worksheet in Microsoft Excel.
- 2. Copy the following spreadsheet exactly as show below. Use the same rows and columns as shown. Enter in the category headings and the amounts of money spent for each day in each category.

- 4	A	B		С		D		E		F		G	
1	TRAVELING EXPENSE REPORT												
2													
3	Expense Categories		Day 1		Day 2		Day 3		Day 4		Amount Spent/Category		
4	Miles Driven			180		15		15		180			
5	Reinbursement	0.35/mile	\$	-	\$	-	\$	-	\$	-	\$	-	
6													
7	Motel Room		\$	85.00	\$	85.00	\$	85.00			\$	-	
8	Breakfast				\$	4.35	\$	3.75	\$	4.25	\$	-	
9	Lunch		\$	4.50	\$	4.75	\$	4.85	\$	4.50	\$	-	
10	Dinner		\$	9.50	\$	12.75	\$	10.75	\$	5.70	\$	-	
11	Theater Admission				\$	14.00					\$	-	
12	Performance Program				\$	3.50					\$	-	
13	Museum Admission				\$	8.25					\$	-	
14													
15	Daily Amount Spent		\$	-	\$	-	\$	-	\$	-			
16													
17	Expense Summary												
18	total Transportation	\$-											
19	Total Lodging	s -											
20	Total Food	\$-											
21	Total Entertainmnet	\$-											
22	TOTAL SPENT	\$-											
23	Money Provided by ATHS	\$ 600.00											
24	Amount Returned to Club	\$ -											
25													
20													

## SPECIFIC TASKS

3. **EXPENSES:** All of the dollar amounts (\$) shown above are expenses. Make sure you have entered them into the correct cells. For all the cells that deal with expenses you will need to **format** the cells so that they show the **\$ symbol** and **two decimal** places. (Example: \$ 4.25) NOTE: Mileage is not currency so should not be formatted as such..

4. FORMULAS: Create and enter the following formulas...

**Mileage Reimbursement:** You get reimbursed \$ 0.35 (35 cents) per mile driven. Calculate in Cells C5 through F5 the amount you should be reimbursed for each day.

**Amount Spent / Category**: Create formulas that calculate the total spent for all 4 days for each expense category and place these formulas in Column G, Cells G5 through G13.

**Daily Amount Spent:** Create formulas that calculate the total spent for each individual day. Place these formulas in Row 15, Cells C15 through F15.

**Expense Summaries:** Create formulas that calculate the total amounts spent for all four days in combined categories of Transportation (Mileage expenses) Lodging (Motel Room) Food (Breakfast, Lunch & Dinner) and Entertainment (Admissions and Programs).

**Amount Returned:** Create a formula that subtracts your total expenses for the entire trip from the \$ 600.00 provided you to determine the amount of money you need to return to your advisor.

5. Save the workbook in your Excel folder as Review\_Ex. 5

## MS Excel Exercise #6: Basketball Statistics

In this lesson you will be creating a Spreadsheet that can be used to calculate statistics from a Armstrong Twp. High School basketball game. This type of spreadsheet is a useful tool in helping to evaluate individual performances and track team trends in games throughout the season.

1. Begin by opening up a new worksheet in Microsoft Excel.

	A	В	С	D	E	F	G	Н		J	K	L	
1	Armstrong High School Basketball Statistics												
2													
3	Game 1												
		Field Goal	Field Goals	3 Pointer	3 Pointer	Free Throws	Free Throws	total Point	% Total	FG % Made	3pt % Made	FT % Made	
4	Player	Attemp	Made	Attemp	Made	Attemp	Made	S	Points	11446		maac	
5	Player 1	4	3	2	1	2	1						
6	Player 2	1	1	1	1	1	1						
7	Player 3	7	5	3	3	3	3						
8	Player 4	4	1	3	1	1	1						
9	Player 5	1	0	0	0	2	1						
10	Player 6	4	3	2	1	2	2						
11	Player 7	1	0	0	0	2	2						
12	Player 8	1	1	0	0	2	0						
13	Player 9	0	0	0	0	0	0						
14	Player 10	0	0	0	0	0	0						
15	Player 11	2	1	0	0	2	1						
16	Player 12	0	0	0	0	0	0						
17	TEAM TOTALS												
18													

2. Copy the following spreadsheet exactly as show below. Make sure that you copy the exact statistics shown on the table. Use the same rows and columns as shown.

- 3. For each Column, B through G, enter a formula that will ADD the total for Rows 5 through 16.
- 4. In Column H, Rows 5 16, you will need to create a formula that will calculate the total number of points that each player scored. This formula will need to have three parts. Use the following information for making your formula...

For each **Field Goal Made** the player scores **2 points** For each **3 Pointer Made** the player scores **3 points** For each **Free Throw Made** the player scores **1 point** 

- 5. In Cell H17, enter a formula that calculates the Total Number of Points score by the Team.
- 6. In Column I, calculate the Percentage of the Total Team Points scored for each individual player

#### Percentage of Total Team Points = Total Points (player) / Total Team Points

You may want to use the Absolute Reference symbol (\$) in this formula (Example: \$C\$1)

- 7. Make sure that Column I displays the calculated numbers with a % sign.
- 8. In Column J, calculate the Percentage of Field Goals Made by each player.

#### % Made = Number Made / Number Attempted

#### IN ADDITION...

If a player did not attempt to shoot or did not score any points,

your formulas for Column J (% Field Goals Made) must not display the error message #DIV/0!

In order to prevent this, you must create an **IF statement** that will print NA (Not Applicable) for all players who did not attempt a shot or did not score any points.

## IF Number Attempted=0, then "NA", else Number Made/Number Attempted

9. In Column K, you will repeat this same kind of IF formula that you created in Column I.

In Column K, calculate the Percentage of the 3 pointers Made by each Player

## % Made = Number 3 Pointers Made / Number 3 Pointers Attempted

You will need to incorporate this formula into an **IF statement** that will print NA (Not Applicable) for all players who did not attempt a three point shot or did not score any points. Remember! The cells must not display the error message **#DIV/0!** 

- 10. Make sure that Column K displays the calculated numbers with a % sign.
- 11. Column L, you will repeat this same kind of IF formula that you created in Column I.

In Column L, calculate the Percentage of the Free Throws Made by each Player

## % Made = Number Free Throws Made / Number Attempted

You will need to incorporate this formula into an **IF statement** that will print NA (Not Applicable) for all players who did not attempt a free throw or did not score any points. Remember! The cells must not display the error message **#DIV/0!** 

- 12. Make sure that Column K displays the calculated numbers with a % sign.
- 13. In Cells J17, enter a formula that will calculate the overall Team 2 pt. Shooting %
- 14. In Cells K17, enter a formula that will calculate the overall Team 3 pt. Shooting %
- 15. In Cells L17, enter a formula that will calculate the overall Team Free Throw Shooting %
- 16. Save the workbook in your Excel folder as Review\_Ex. 6

## MS Excel Exercise #7: Spreadsheet Functions & Formulas

Your teacher, Ms. Schleef, has asked you to help her set up an Excel Spreadsheet that will organize the grades of her Information Processing students. She has given you the following student records and would like for you to organize it into grade book that can be used to calculate and record student test grades.

- 1. Open a new worksheet in Microsoft Excel.
- 2. Create an appropriate Title for the grade book worksheet and list your name as the author of it.
- 3. The following information must be placed onto an organized on a spreadsheet. Use appropriate column headings.

Student Last Names and their Scores for Test #1, #2, #3

Aaronson: 78, 89, 80	Garcia: 84, 91, 76	Jae Woo: 72, 80, 70	Diones: 88, 91, 80
Ellenberg: 60, 70, 73	Kelly: 75, 90, 93	Hathaway: 87. 68, 80	Barnett: 71, 77, 91
Costello: 67, 79, 80	Laney: 98, 86, 70	Mortenson: 66, 53, 71	Fallstaff: 76, 90, 90

- 4. Change the column widths so that the name column fits the widest entry.
- 5. Enter formulas to calculate the following...
  - a. Each Individual Student's Combined Test Average.
  - b. The Overall Class Average for each Test (Test #1, #2, & #3)
- 6. Ms. Schleef wants to identify all students who have overall grades of less than 70%. Create an IF Function that will evaluate each students overall average test grade and will print out the words, "Study Hall" if their average is below 70%
- 7. Format all averages to **one decimal** place.
- 8. Center all column headings and Bold them
- 9. **Sort** the student in alphabetical order.
- 10. Save the workbook in your Excel folder as Review\_Ex. 7