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 - Date: _____
 - Section: _____
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BUSI 201: Business Data Analysis

Quiz #1: Excel Basics

INSTRUCTIONS:

- BUSI201-Q01-Workbook.xlsx is the companion workbook for this quiz.
- The workbook consists of four worksheets: Expenses, Employee, Sales, and Inventory.
- The quiz booklet contains 4 problems, each corresponding to one of the worksheets.
- Unless explicitly stated, manually typing in the answers without using functions will result in all points being deducted from the specific question.
- Once you are finished, save/ rename the workbook to BUSI201-Q01-**YOUR_LOGIN_ID**.xlsx, and submit your results via email to BPARK@monmouthcollege.edu.

Quiz #1

BUSI 201 Business Data Analysis

Problem 1. Expenses: 30 Points

The first problem describes the tasks assigned for the first worksheet Expenses. The worksheet contains a synthetic expense sheet for a household. It is currently sorted by date, and the information given includes the vendor, the transaction category, the amount spent, and the payment method used.

The table highlighted by the blue box contains information about the cashback rewards each payment method provides. For instance, if Card A is used to pay for any expense categorized as Groceries, the consumer will be granted 6% of the transaction value as a cashback reward. But if CARD A is used for any other transaction, the rate of return on spend will be 1%.

August 2023 Performance Report										
Category	Financial Summary			Operational Metrics			Strategic Initiatives			
	Revenue		Profit Margin	Production		Quality Score	Customer Sat.		Market Share	
	\$1,250,000	15%	20%	1000	95%	8.5	92%	90%	15%	10%
	\$1,200,000	14%	19%	980	94%	8.2	91%	89%	14%	9%
	\$1,150,000	13%	18%	960	93%	7.9	90%	88%	13%	8%
Expenditure	\$1,250,000	15%	20%	1000	95%	8.5	92%	90%	15%	10%
Rewards	\$1,200,000	14%	19%	980	94%	8.2	91%	89%	14%	9%
Total RoR	\$1,150,000	13%	18%	960	93%	7.9	90%	88%	13%	8%
Date	Vendor	Category	Amount	Payment		RoR				Rewards
8/1/2023	Supermart	Groceries	\$ 75.00	Card A						
8/2/2023	The Bistro	Dining	\$ 45.00	Card B						
8/3/2023	Airlines Inc.	Travel	\$ 150.00	Card A						
8/5/2023	Health Plus	Drug Stores	\$ 30.25	Cash						
8/7/2023	PetroCo	Gasoline	\$ 60.00	Card B						
8/10/2023	Movieflex	Entertainment	\$ 20.00	Cash						
8/12/2023	Casa Italia	Dining	\$ 85.75	Card A						
8/14/2023	MegaMart	Groceries	\$ 200.00	Card B						
8/15/2023	Hotel Stay Inn	Travel	\$ 75.50	Card A						
8/18/2023	FuelEaze	Gasoline	\$ 15.25	Cash						
8/20/2023	The Grill	Dining	\$ 50.00	Card A						
8/22/2023	CineFlex	Entertainment	\$ 40.00	Card B						
8/24/2023	QuickMeds	Drug Stores	\$ 40.50	Cash						
8/27/2023	FreshMart	Groceries	\$ 55.25	Card A						
8/29/2023	FastFuel	Gasoline	\$ 70.00	Card B						
8/30/2023	Cafe Express	Dining	\$ 25.00	Cash						
8/31/2023	AmuseWorld	Entertainment	\$ 65.75	Card A						
8/4/2023	SaveMore	Groceries	\$ 35.50	Card B						
8/6/2023	Train Tickets	Travel	\$ 90.00	Cash						
8/7/2023	FuelEaze	Gasoline	\$ 27.75	Card A						
8/11/2023	Sushi Palace	Dining	\$ 40.25	Card B						
8/13/2023	GameZone	Entertainment	\$ 55.00	Card A						
8/16/2023	MediaMart	Drug Stores	\$ 20.00	Cash						
8/18/2023	FastFuel	Groceries	\$ 80.00	Card B						
8/21/2023	QuickLube	Gasoline	\$ 70.75	Card A						
8/23/2023	Pizzeria Bella	Dining	\$ 45.00	Cash						
8/26/2023	Uber	Travel	\$ 22.25	Card B						
8/28/2023	Minigolf	Entertainment	\$ 15.00	Card A						
8/31/2023	ShopRight	Groceries	\$ 65.50	Cash						
8/3/2023	FastFill	Gasoline	\$ 75.25	Card A						
8/5/2023	The Café	Dining	\$ 50.50	Card B						
8/7/2023	Variation Analysis	Travel	\$ 120.00	Cash						
Expenses		Employee	Sales	Inventory						

Task #1: 15 Points

Your first task is to find the entries for the RoR column highlighted by the **red box**. It should contain the rate of return (%) on spend as dictated by the table in the **blue box**.

Task #2: 5 Points

The next task is to find the amount of rewards that the consumer accumulates from each transaction in the Rewards column marked by the orange box.

Task #3: 10 Points

Finally, you must fill out the table highlighted by the **purple box** with the household's total expenditure, total cashback rewards, and the overall rate of return, corresponding to column B.

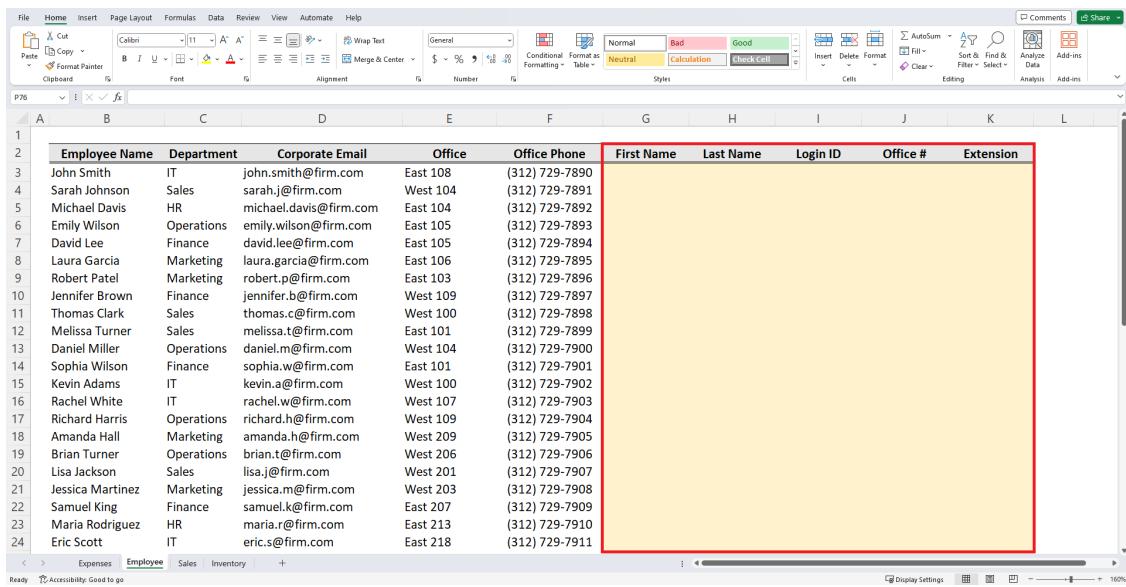
- Make use of the IF function for the RoR.

Problem 2. Employee: 10 Points

The second worksheet, corresponding to the second problem, contains information of a list of employees in a fictitious firm. The entries include the employees' full names, their department, corporate email address which takes the form of LOGIN_ID@firm.com, their office location and number (West or East Tower), and office phone number.

Task #1: 10 Points

The single task in this problem is to fill in the entries highlighted by the red box with the employees' first name, last name, login ID, office number, and their phone extension (last 4 digits of office phone number).



	Employee Name	Department	Corporate Email	Office	Office Phone	First Name	Last Name	Login ID	Office #	Extension	
3	John Smith	IT	john.smith@firm.com	East 108	(312) 729-7890						
4	Sarah Johnson	Sales	sarah.j@firm.com	West 104	(312) 729-7891						
5	Michael Davis	HR	michael.davis@firm.com	East 104	(312) 729-7892						
6	Emily Wilson	Operations	emily.wilson@firm.com	East 105	(312) 729-7893						
7	David Lee	Finance	david.lee@firm.com	East 105	(312) 729-7894						
8	Laura Garcia	Marketing	laura.garcia@firm.com	East 106	(312) 729-7895						
9	Robert Patel	Marketing	robert.p@firm.com	East 103	(312) 729-7896						
10	Jennifer Brown	Finance	jennifer.b@firm.com	West 109	(312) 729-7897						
11	Thomas Clark	Sales	thomas.c@firm.com	West 100	(312) 729-7898						
12	Melissa Turner	Sales	melissa.t@firm.com	East 101	(312) 729-7899						
13	Daniel Miller	Operations	daniel.m@firm.com	West 104	(312) 729-7900						
14	Sophia Wilson	Finance	sophia.w@firm.com	East 101	(312) 729-7901						
15	Kevin Adams	IT	kevin.a@firm.com	West 100	(312) 729-7902						
16	Rachel White	IT	rachel.w@firm.com	West 107	(312) 729-7903						
17	Richard Harris	Operations	richard.h@firm.com	West 109	(312) 729-7904						
18	Amanda Hall	Marketing	amanda.h@firm.com	West 209	(312) 729-7905						
19	Brian Turner	Operations	brian.t@firm.com	West 206	(312) 729-7906						
20	Lisa Jackson	Sales	lisa.j@firm.com	West 201	(312) 729-7907						
21	Jessica Martinez	Marketing	jessica.m@firm.com	West 203	(312) 729-7908						
22	Samuel King	Finance	samuel.k@firm.com	East 207	(312) 729-7909						
23	Maria Rodriguez	HR	maria.r@firm.com	East 213	(312) 729-7910						
24	Eric Scott	IT	eric.s@firm.com	East 218	(312) 729-7911						

- Make use of the flash fill function we covered in class.
- No points deducted for manually typing in the correct answers for Problem 2.

Problem 3. Expenses: 40 Points

The third worksheet mimcs sales data for a department store. The main table gives us information about the date of the sale, which employee made the sale, the product name and quantity sold, the price of each unit, and the value of the transaction.

Red Box Summary Table:

Product	# of Sales	Total Quantity	Sales (\$)
Backpack	1	1	1,000.00
Boots	1	1	1,200.00
Dress	1	1	600.00
Gloves	1	1	45.00
Hat	1	1	40.00
Jacket	1	1	600.00
Jeans	1	1	5.00
Scarf	1	1	375.00
Shirt	1	1	15.00
Shoes	1	1	25.00
Skirt	1	1	720.00
Socks	1	1	35.00
Sunglasses	1	1	700.00
Sweater	1	1	800.00
Umbrella	1	1	320.00

Blue Box Summary Table:

Employee	# of Sales	Total Quantity	Total Sales
Employee A	1	1	1,000.00
Employee B	1	1	1,200.00
Employee C	1	1	600.00
Employee D	1	1	1,800.00
Employee E	1	1	45.00
Employee F	1	1	40.00

Task #3: 15 points

Finally, you must fill out the table highlighted by the orange box by finding the top and bottom three largest single transaction made. Note that we are not trying to find the employee who made the most sales, or the product with the highest/lowest transaction value, but the highest and lowest transaction value itself.

Task #1: 15 points

Your first task is to find the correct values for the table in the red box. It should contain the sales figures by product, and must be filled with the total number of sales (how many times it was sold, NOT the total quantity), the total quantity of units sold, and the total dollar value of the sales.

Task #2: 10 points

The next task is to complete the blue box, analogous to the first task but calculating the numbers by employee instead of by products. Calculate and report the total numer of sales, the total quantity of goods sold, and total dollar value of their sales.

Problem 4. Inventory: 20 Points

The final problem of this quiz will consist of two tasks on the worksheet Inventory. This worksheet contains information on inventory from a supermarket. Each item is given a unique item code, and the quantity of items in inventory, and the price of each unit.

Item Code	Item Make	Item Name	Category	Inventory	Price	Total Value
1001	Carnation	Coco-Cola	Breakfast Cereals	500	\$ 3.99	
1002	Coca-Cola	Coco-Cola Classic	Beverages	800	\$ 3.99	
1003	General Mills	Cheerios	Breakfast Cereals	400	\$ 4.49	
1004	Heinz	Ketchup	Condiments	300	\$ 2.49	
1005	Nestlé	Toasted Water	Beverages	1000	\$ 0.99	
1006	Gibson's	Tomato Soup	Canned Foods	600	\$ 1.79	
1007	Colgate	Toothpaste	Personal Care	750	\$ 2.29	
1008	Johnson & Johnson	Baby Shampoo	Baby Care	400	\$ 3.99	
1009	Quaker Oats	Oatmeal	Breakfast Cereals	450	\$ 3.29	
1010	Pantene	Shampoo	Personal Care	600	\$ 4.99	
1011	Lipton	Tea Bags	Beverages	550	\$ 1.99	
1012	Dove	Bar Soap	Personal Care	900	\$ 1.49	
1013	Lay's	Potato Chips	Snacks	700	\$ 3.49	
1014	Gatorade	Sports Drink	Beverages	400	\$ 1.79	
1015	Hormel	Bratwurst Sausages	Meat & Poultry	350	\$ 1.99	
1016	Wrigley	Chewing Gum	Snacks	800	\$ 0.99	
1017	Tide	Laundry Detergent	Household	400	\$ 5.99	
1018	Breyers	Ice Cream	Frozen Foods	300	\$ 4.49	
1019	Tropicana	Orange Juice	Beverages	450	\$ 3.49	
20	Nutella	Milk Spread	Breakfast Foods	250	\$ 3.99	
21	Swiffer	Wet Mop Starter Kit	Household	900	\$ 9.99	
22	Keurig	Single Cup Coffee	Beverages	500	\$ 4.99	
23	Johnson & Johnson	Toilet Paper	Household	900	\$ 5.99	
24	Kellogg's	Rice Krispies	Breakfast Cereals	350	\$ 3.99	
25	Duracell	AA Batteries	Electronics	600	\$ 0.99	
26	Johnson & Johnson	Baby Lotion	Baby Care	350	\$ 3.49	
27	Skittles	Hard Candy	Snacks	400	\$ 4.49	
28	Kraft	Macaroni & Cheese	Pasta & Grains	700	\$ 1.29	
29	Clorox	Disinfecting Wipes	Household	450	\$ 4.99	
30	Huggies	Baby Wipes	Baby Care	600	\$ 2.99	
31	Swiffer	Wet Mop Refill	Household	300	\$ 9.99	
32	Keurig	Single Cup Coffee	Beverages	500	\$ 4.99	
33	Hershey's	Chocolate Bars	Candy & Sweets	800	\$ 1.19	
34	Arm & Hammer	Laundry Detergent	Household	350	\$ 4.29	
35	Barilla	Spaghetti	Pasta & Grains	600	\$ 1.69	
36	Johnson & Johnson	Medicinal Powder	Baby Care	400	\$ 2.79	
37	Mars	Frozen Pizza	Frozen Foods	300	\$ 5.99	
38	Bounty	Paper Towels	Household	750	\$ 3.49	
39	1036	Conditioner	Personal Care	500	\$ 3.29	
40	Purina	Dog Food	Pets	350	\$ 4.49	
41	Swiffer	Laundry Detergent	Household	400	\$ 4.99	
42	1040	Cheerios	Breakfast Cereals	450	\$ 4.49	
43	1041	Pepsi	Beverages	800	\$ 1.99	
44	Oreo	Oreo Cookies	Snacks	600	\$ 2.49	
45	Febreze	Air Freshener	Household	450	\$ 3.99	
46	1044	Grape Juice	Beverages	350	\$ 2.99	

Task #1: 5 Points

Your first task is to find the correct values for the table in the **red box**, which should be the value of the inventory in stock for each item.

Task #2: 15 Points

For the final task of this quiz, fill out the table highlighted in the **blue box**. The empty cells should return the item name, and the unit price corresponding to the item code in column J.

- Use the VLOOKUP function for task #2.