### value: 10.00 points

Olympia Bivalve farms and sells oysters in the Pacific Northwest. The company harvested and sold 7,000 pounds of oysters in July. The company's flexible budget for July appears below:

Olympia Bivalve Flexible Budget For the Month Ended July 31	
Actual pounds (q)	7,000
Revenue (\$4.20 <i>q</i> )	\$29,400
Expenses:	-
Packing supplies (\$0.40q)	2,800
Oyster bed maintenance (\$3,600)	3,600
Wages and salaries (\$2,540 + \$0.50q)	6,040
Shipping (\$0.75 <i>q</i> )	5,250
Utilities (\$1,260)	1,260
Other (\$510 + \$0.05q)	860
Total expense	19,810
Net operating income	\$ 9,590

The actual results for July appear below:

Olympia Bivalve Income Statement For the Month Ended Ju	lv 31	
Actual pounds	7,00	00
Revenue	\$ 28,6	
Expenses:	0	
Packing supplies	2,9	
Oyster bed maintenance	3,46	30
Wages and salaries	6,4	50
Shipping	4,98	30
Utilities	1,0	70
Other	1,48	30
Total expense	20,4	410
Net operating income	\$ 8,19	90

Compute the company's revenue and spending variances for July. (Input all amounts as positive values. Leave no cells blank - be certain to enter "0" wherever required. Indicate the effect of each variance by selecting "F" for favorable, "U" for unfavorable, and "None" for no effect (i.e., zero variance). Omit the "\$" sign in your response.)

Revenue	\$ 800	U	*
Expenses:			
Packing supplies	170	U	*
Oyster bed maintenance	140	F	V
Wages and salaries	410	U	*
Shipping	270	F	¥
Utilities	190	F	*
Other	620	U	¥
Total expense	600	U	•
Net operating income	\$ 1400	U	•

Air Meals is a company that prepares in-flight meals for airlines in its kitchen located next to the local airport. The company's planning budget for December appears below:

Air Meals Planning Budget	
For the Month Ended December	31
Budgeted meals (q)	20,000
Revenue (\$3.80 <i>q</i> )	\$76,000
Expenses:	
Raw materials (\$2.30q)	46,000
Wages and salaries (\$6,400 + \$0.25q)	11,400
Utilities (\$2,100 + \$0.05q)	3,100
Facility rent (\$3,800)	3,800
Insurance (\$2,600)	2,600
Miscellaneous (\$700 + \$0.10q)	2,700
Total expense	69,600
Net operating income	\$ 6,400

In December, 21,000 meals were actually served. The company's flexible budget for this level of activity is as follows:

Air Meals Flexible Budget	
For the Month Ended December 3	31
Budgeted meals (q)	21,000
Revenue (\$3.80 <i>q</i> )	\$79,800
Expenses:	
Raw materials (\$2.30 <i>q</i> )	48,300
Wages and salaries (\$6,400 + \$0.25q)	11,650
Utilities (\$2,100 + \$0.05q)	3,150
Facility rent (\$3,800)	3,800
Insurance (\$2,600)	2,600
Miscellaneous (\$700 + \$0.10q)	2,800
Total expense	72,300
Net operating income	\$ 7,500
	:

### Required:

1. Compute the company's activity variances for December. (Input all amounts as positive values. Leave no cells blank - be certain to enter "0" wherever required. Indicate the effect of each variance by selecting "F" for favorable, "U" for unfavorable, and "None" for no effect (i.e., zero variance). Omit the "\$" sign in your response.)

Revenue	\$	3800	F	*
Expenses:	\$7			
Raw materials		2300	U	•
Wages and salaries		250	U	•
Utilities		50	U	•
Facility rent		0	None	▼
Insurance		0	None	•
Miscellaneous		100	U	▼
Total expense		2700	U	٠
Net operating income	\$	1100	F	•

Download the Applying Excel form and enter formulas in all cells that contain question marks.

For example, in cell B30 enter the formula "= B19".

## Notes:

 In the text, variances are always displayed as positive numbers. To accomplish this, you can use the ABS() function in Excel. For example, the formula in cell C31 would be "=ABS(E31-B31)".

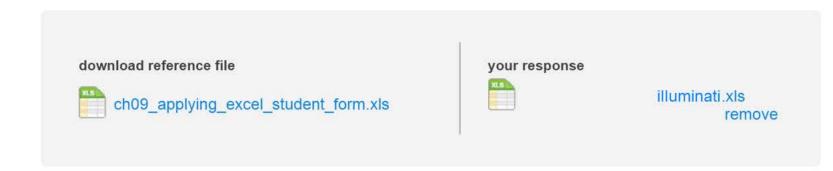
 Cells D31 through D39 and G31 through G39 already contain formulas to compute and display whether variances are Favorable or Unfavorable. Do not enter data or formulas into those cells—if you do, you will overwrite these formulas.



After entering formulas in all of the cells that contained question marks, verify that the amounts match the numbers in the example in the text.

Check your worksheet by changing the revenue in cell D4 to \$16.00; the cost of ingredients in cell D5 to \$6.50; and the wages and salaries in cell B6 to \$10,000. The activity variance for net operating income should now be \$850 U and the spending variance for total expenses should be \$410 U. If you do not get these answers, find the errors in your worksheet and correct them

Save your completed Applying Excel form to your computer and then upload it here by clicking "Browse." Next, click "Save." You will use this worksheet to answer the questions in Part 2.



# 2. value: 10.00 points

### Requirement 2:

Revise the data in your worksheet to reflect the results for the subsequent period as shown below:



	Α	В	С	D	E
1	Chapter 09: Applying Excel				
2					
3	Data				
4	Revenue			\$16.50	q
5	Cost of ingredients			\$6.25	q
6	Wages and salaries	\$10,400			
7	Utilities	\$800	+	\$0.20	q
8	Rent	\$2,200			
9	Miscellaneous	\$600	+	\$0.80	q
10					
11	Actual results:				
12	Revenue	\$29,920			
13	Cost of ingredients	\$11,020			
14	Wages and salaries	\$10,440			
15	Utilities	\$1,130			
16	Rent	\$2,200			
17	Miscellaneous	\$2,055			
18					
19	Planning budget activity	1,700	meals served		
20	Actual activity	1,800	meals served		
21					

(a) What is the activity variance for revenue? (Input the amount as a positive value. Leave no cells blank - be certain to enter "0" wherever required. Indicate the effect of each variance by selecting "F" for favorable, "U" for unfavorable, and "None" for no effect (i.e., zero variance). Omit the "\$" sign in your response.)

The amount of the activity variance for revenue	\$	1650
The activity variance for revenue is:	F	▼

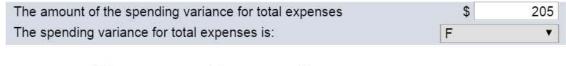
(b) What is the spending variance for the cost of ingredients? (Input the amount as a positive value. Leave no cells blank - be certain to enter "0" wherever required. Indicate the effect of each variance by selecting "F" for favorable, "U" for unfavorable, and "None" for no effect (i.e., zero variance). Omit the "\$" sign in your response.)

The amount of the spending variance for the cost of ingredients	\$	230
The spending variance for the cost of ingredients is:	F	▼

(c) What is spending variance for wages and salaries? (Input the amount as a positive value. Leave no cells blank - be certain to enter "0" wherever required. Indicate the effect of each variance by selecting "F" for favorable, "U" for unfavorable, and "None" for no effect (i.e., zero variance). Omit the "\$" sign in your response.)

The amount of the spending variance for wages and salaries	\$	40
The spending variance for wages and salaries is:	U	▼

(d) What is spending variance for total expenses? (Input the amount as a positive value. Leave no cells blank - be certain to enter "0" wherever required. Indicate the effect of each variance by selecting "F" for favorable, "U" for unfavorable, and "None" for no effect (i.e., zero variance). Omit the "\$" sign in your response.)







# 5. value:

Icicle Bay Tours operates day tours of coastal glaciers in Alaska on its tour boat the Emerald Glacier. Management has identified two cost drivers—the number of cruises and the number of passengers—that it uses in its budgeting and performance reports. The company publishes a schedule of day cruises that it may supplement with special sailings if there is sufficient demand. Up to 80 passengers can be accommodated on the tour boat. Data concerning the company's cost formulas appear below:

	Fixed Cost Per Month	Cost per Cruise	Cost per Passenger
Vessel operating costs	\$ 6,800	\$475.00	\$ 3.50
Advertising	\$ 2,700		
Administrative costs	\$ 5,800	\$ 36.00	\$ 1.80
Insurance	\$ 3,600		

For example, vessel operating costs should be \$6,800 per month plus \$475.00 per cruise plus \$3.50 per passenger. The company's sales should average \$28.00 per passenger. The company's planning budget for August is based on 58 cruises and 3,200 passengers.

### Required:

Complete the company's planning budget for August. (Input all amounts as positive values. Omit the "\$" sign in your response.)

evenue	\$	89600
xpenses:	FR	
Vessel operating costs		45550
Advertising		2700
Administrative costs		13648
Insurance		3600
tal expense		65498
et operating income	\$	24102

The KGV Blood Bank, a private charity partly supported by government grants, is located on the Caribbean island of St. Lucia. The blood bank has just finished its operations for September, which was a particularly busy month due to a powerful hurricane that hit neighboring islands causing many injuries. The hurricane largely bypassed St. Lucia, but residents of St. Lucia willingly donated their blood to help people on other islands. As a consequence, the blood bank collected and processed 30% more blood than had been originally planned for the month.

A report prepared by a government official comparing actual costs to budgeted costs for the blood bank is given below. (The currency on St. Lucia is the East Caribbean dollar.) Continued support from the government depends on the blood bank's ability to demonstrate control over its costs.

	Cont	od Banl rol Repo	ort		
1 of the Mont	Р	lanning Budget	Actual	Varia	nces
Liters of blood collected		600	780		
Medical supplies	\$	7,110	\$ 9,252	\$2,142	U
Lab tests		8,610	10,782	2,172	U
Equipment depreciation		1,900	2,100	200	U
Rent		1,500	1,500	0	
Utilities		300	324	24	U
Administration		14,310	14,575	265	U
Total expense	\$	33,730	\$ 38,533	\$4,803	U

The managing director of the blood bank was very unhappy with this report, claiming that his costs were higher than expected due to the emergency on the neighboring islands. He also pointed out that the additional costs had been fully covered by payments from grateful recipients on the other islands. The government official who prepared the report countered that all of the figures had been submitted by the blood bank to the government; he was just pointing out that actual costs were a lot higher than promised in the budget.

The following cost formulas were used to construct the planning budget:

Medical supplies	\$11.85q
Lab tests	\$14.35g
Equipment depreciation	\$1,900
Rent	\$1,500
Utilities	\$300
Administration	\$13,200 + \$1.85q

### Required:

 Complete the performance report for September using the flexible budget approach. (Input all amounts as positive values. Leave no cells blank - be certain to enter "0" wherever required. Indicate the effect of each variance by selecting "F" for favorable, "U" for unfavorable, and "None" for no effect (i.e., zero variance). Omit the "\$" sign in your response.)

		KGV Bloo e Budget Per e Month Ende	formance Re			
		Variances		Spending	g Variances	
Medical supplies	\$ 2133	U	<b>*</b>	\$ 9	U	▼.
Lab tests	2583	U	•	411	F	▼
Equipment depreciation	0	None	•	200	U	▼-
Rent	0	None	•	0	None	▼
Utilities	0	None	▼	24	U	▼.
Administration	333	U	▼	68	F	*
Total expense	\$ 5049	U	▼]	\$ 246	F	•

### value: 10.00 points

Mt. Hood Air offers scenic overflights of Mt. Hood and the Columbia River gorge. Data concerning the company's operations in August appear below:

For the Month Ended	Planning	Flexible	
	Budget	Budget	
Flights (q)	50	52	52
Revenue (\$360.00 <i>q</i> )	\$18,000	\$18,720	\$ 16,980
Expenses:			
Wages and salaries (\$3,800 + \$92.00q)	8,400	8,584	8,540
Fuel (\$34.00 <i>q</i> )	1,700	1,768	1,930
Airport fees (\$870 + \$35.00g)	2,620	2,690	2,690
Aircraft depreciation (\$11.00g)	550	572	572
Office expenses ( $$230 + $1.00q$ )	280	282	450
Total expense	13,550	13,896	14,182
Net operating income	\$ 4,450	\$ 4,824	\$ 2,798

The company measures its activity in terms of flights. Customers can buy individual tickets for overflights or hire an entire plane for an overflight at a discount.

### Required:

1. Complete the flexible budget performance report abstract for August. (Input all amounts as positive values. Leave no cells blank - be certain to enter "0" wherever required. Indicate the effect of each variance by selecting "F" for favorable, "U" for unfavorable, and "None" for no effect (i.e., zero variance). Omit the "\$" sign in your response.)

	Activity '	Variances		Reve	nue and Sp	ending Varia	nces
Revenue	\$ 720	F	*▼	\$	1740	U	*
Expenses:			_		<del>-</del>		
Wages and salaries	184	U	•		44	F	*
Fuel	68	U	•		162	U	•
Airport fees	70	U	▼	1.1	0	None	٧
Aircraft depreciation	22	U	•		0	None	•
Office expenses	2	U	· •		168	Ü	•
Total expense	346	U	<b>V</b>		286	U	•
Net operating income	\$ 374	F	(▼.)	\$	2026	U	7

Gator Divers is a company that provides diving services such as underwater ship repairs to clients in the Tampa Bay area. The company's planning budget for March appears below:

Gator Divers	
Planning Budget	
For the Month Ended March 31	
Budgeted diving-hours (q)	200
Revenue (\$380.00 <i>q</i> )	\$76,000
Expenses:	
Wages and salaries (\$12,000 + \$130.00q)	38,000
Supplies (\$5.00q)	1,000
Equipment rental (\$2,500 + \$26.00q)	7,700
Insurance (\$4,200)	4,200
Miscellaneous (\$540 + \$1.50q)	840
Total expense	51,740
Net operating income	\$24,260

# Required:

During March, the company's activity was actually 190 diving-hours. Complete the flexible budget for that level of activity. (Input all amounts as positive values. Omit the "\$" sign in your response.)

Revenue	\$ 72200
xpenses:	
Wages and salaries	36700
Supplies	950
Equipment rental	7440
Insurance	4200
Miscellaneous	825
otal expense	50115
let operating income	\$ 22085

Points earned on auto-graded questions: 70 /70 pts Points you may earn on instructor-graded questions: 10 pts This assignment is worth: 80 pts