

**Exercise 11-1** (10 minutes)

Puget Sound Divers  
Flexible Budget  
For the Month Ended May 31

Actual diving-hours.....	105
Revenue (\$365.00q) .....	<u>\$38,325</u>
Expenses:	
Wages and salaries (\$8,000 + \$125.00q)...	21,125
Supplies (\$3.00q).....	315
Equipment rental (\$1,800 + \$32.00q).....	5,160
Insurance (\$3,400) .....	3,400
Miscellaneous (\$630 + \$1.80q) .....	<u>819</u>
Total expense .....	<u>30,819</u>
Net operating income .....	<u>\$ 7,506</u>

**Exercise 11-2** (15 minutes)

1. The activity variances are shown below:

Flight Café Activity Variances For the Month Ended July 31			
	<i>Planning Budget</i>	<i>Flexible Budget</i>	<i>Activity Variances</i>
Meals .....	18,000	17,800	
Revenue (\$4.50q) .....	<u>\$81,000</u>	<u>\$80,100</u>	<u>\$900</u> U
Expenses:			
Raw materials (\$2.40q) .....	43,200	42,720	480 F
Wages and salaries (\$5,200 + \$0.30q) .....	10,600	10,540	60 F
Utilities (\$2,400 + \$0.05q) .....	3,300	3,290	10 F
Facility rent (\$4,300) .....	4,300	4,300	0
Insurance (\$2,300) .....	2,300	2,300	0
Miscellaneous (\$680 + \$0.10q) ..	<u>2,480</u>	<u>2,460</u>	<u>20</u> F
Total expense .....	<u>66,180</u>	<u>65,610</u>	<u>570</u> F
Net operating income .....	<u>\$14,820</u>	<u>\$14,490</u>	<u>\$330</u> U

2. Management should be concerned that the level of activity fell below what had been planned for the month. This led to an expected decline in profits of \$330. However, the individual items on the report should not receive much management attention. The unfavorable variance for revenue and the favorable variances for expenses are entirely caused by the drop in activity.

**Exercise 11-3** (15 minutes)

Quilcene Oysteria  
Revenue and Spending Variances  
For the Month Ended August 31

	<i>Flexible Budget</i>	<i>Actual Results</i>	<i>Revenue and Spending Variances</i>	
Pounds .....	8,000	8,000		
Revenue (\$4.00q) .....	<u>\$32,000</u>	<u>\$35,200</u>	<u>\$3,200</u>	F
Expenses:				
Packing supplies (\$0.50q) .....	4,000	4,200	200	U
Oyster bed maintenance (\$3,200) .....	3,200	3,100	100	F
Wages and salaries (\$2,900 + \$0.30q) .....	5,300	5,640	340	U
Shipping (\$0.80q) .....	6,400	6,950	550	U
Utilities (\$830) .....	830	810	20	F
Other (\$450 + \$0.05q) .....	<u>850</u>	<u>980</u>	<u>130</u>	U
Total expense .....	<u>20,580</u>	<u>21,680</u>	<u>1,100</u>	U
Net operating income .....	<u>\$11,420</u>	<u>\$13,520</u>	<u>\$2,100</u>	F

**Exercise 11-4** (20 minutes)

1.

Vulcan Flyovers  
Flexible Budget Performance Report  
For the Month Ended July 31

	<i>Planning Budget</i>	<i>Activity Variances</i>		<i>Flexible Budget</i>	<i>Revenue and Spending Variances</i>		<i>Actual Results</i>
Flights (q).....	50			48			48
Revenue (\$320.00q).....	<u>\$16,000</u>	<u>\$640</u>	U	<u>\$15,360</u>	<u>\$1,710</u>	U	<u>\$13,650</u>
Expenses:							
Wages and salaries (\$4,000 + \$82.00q) .....	8,100	164	F	7,936	494	U	8,430
Fuel (\$23.00q).....	1,150	46	F	1,104	156	U	1,260
Airport fees (\$650 + \$38.00q) .....	2,550	76	F	2,474	124	F	2,350
Aircraft depreciation (\$7.00q) .....	350	14	F	336	0		336
Office expenses (\$190 + \$2.00q) .	<u>290</u>	<u>4</u>	F	<u>286</u>	<u>174</u>	U	<u>460</u>
Total expense .....	<u>12,440</u>	<u>304</u>	F	<u>12,136</u>	<u>700</u>	U	<u>12,836</u>
Net operating income .....	<u>\$ 3,560</u>	<u>\$336</u>	U	<u>\$ 3,224</u>	<u>\$2,410</u>	U	<u>\$ 814</u>

2. The overall \$336 unfavorable activity variance is due to activity falling below what had been planned for the month. The \$1,710 unfavorable revenue variance is very large relative to the company's net operating income and should be investigated. Was this due to discounts given or perhaps a lower average number of passengers per flight than usual? The \$494 unfavorable spending variance for wages and salaries is also large and should be investigated. The other spending variances are relatively small, but are worth some management attention—particularly if they recur next month.

**Exercise 11-5** (15 minutes)

Alyeski Tours  
Planning Budget  
For the Month Ended July 31

Budgeted cruises ( $q_1$ ) .....	24
Budgeted passengers ( $q_2$ ) .....	1,400
Revenue ( $\$25.00q_2$ ).....	<u>\$35,000</u>
Expenses:	
Vessel operating costs ( $\$5,200 + \$480.00q_1 + \$2.00q_2$ ).....	19,520
Advertising ( $\$1,700$ ).....	1,700
Administrative costs ( $\$4,300 + \$24.00q_1 + \$1.00q_2$ ).....	6,276
Insurance ( $\$2,900$ ) .....	<u>2,900</u>
Total expense .....	<u>30,396</u>
Net operating income .....	<u>\$ 4,604</u>

**Problem 11-19** (45 minutes)

1. The variance report should *not* be used to evaluate how well costs were controlled. In July, the planning budget was based on 150 lessons, but the actual results are for 155 lessons—an increase of more than 3% over budget. Consequently, the actual revenues and many of the actual costs *should* have been different from what was budgeted at the beginning of the period. For example, instructor wages, a variable cost, should have increased by more than 3% because of the increase in activity, but the variance report assumes that they should not have increased at all. This results in a spurious unfavorable variance for instructor wages. Direct comparisons of budgeted to actual costs are valid only if the costs are fixed.
2. See the following page.
3. The overall activity variance for net operating income was \$435 F (favorable). That means that as a consequence of the increase in activity from 150 lessons to 155 lessons, the net operating income should have been up \$435 over budget. However, it wasn't. The budgeted net operating income was \$8,030 and the actual net operating income was \$8,080, so the profit was up by only \$50—not \$435 as it should have been. There are many reasons for this—as shown in the revenue and spending variances. Perhaps most importantly, fuel costs were much higher than expected. The spending variance for fuel was \$425 U (unfavorable) and may have been due to an increase in the price of fuel that is beyond the owner/manager's control. Most of the other spending variances were favorable, so with the exception of this item, costs seem to have been adequately controlled. In addition, the unfavorable revenue variance of \$200 indicates that revenue was slightly less than they should have been. This variance is very small relative to the size of the revenue, so it may not justify investigation.

**Problem 11-19** (continued)

TipTop Flight School  
Flexible Budget Performance Report  
For the Month Ended July 31

	<i>Planning Budget</i>	<i>Activity Variances</i>		<i>Flexible Budget</i>	<i>Revenue and Spending Variances</i>		<i>Actual Results</i>
Lessons (q) .....	150			155			155
Revenue (\$220q).....	<u>\$33,000</u>	<u>\$1,100</u>	F	<u>\$34,100</u>	<u>\$200</u>	U	<u>\$33,900</u>
Expenses:							
Instructor wages (\$65q) .....	9,750	325	U	10,075	205	F	9,870
Aircraft depreciation (\$38q) .....	5,700	190	U	5,890	0		5,890
Fuel (\$15q) .....	2,250	75	U	2,325	425	U	2,750
Maintenance (\$530 + \$12q) .....	2,330	60	U	2,390	60	U	2,450
Ground facility expenses (\$1,250 + \$2q) .....	1,550	10	U	1,560	20	F	1,540
Administration (\$3,240 + \$1q) .....	<u>3,390</u>	<u>5</u>	U	<u>3,395</u>	<u>75</u>	F	<u>3,320</u>
Total expense .....	<u>24,970</u>	<u>665</u>	U	<u>25,635</u>	<u>185</u>	U	<u>25,820</u>
Net operating income .....	<u>\$ 8,030</u>	<u>\$ 435</u>	F	<u>\$ 8,465</u>	<u>\$385</u>	U	<u>\$ 8,080</u>