

Question 1 - CMA 1291 3-18 - Sales and Market Variances

Folsom Fashions sells a line of women's dresses. Folsom's performance report for November follows.

	Actual	Budget
Dresses sold	5,000	6,000
Sales	\$235,000	\$300,000
Variable costs	<u>(145,000)</u>	<u>(180,000)</u>
Contribution margin	\$ 90,000	\$120,000
Fixed costs	<u>(84,000)</u>	<u>(80,000)</u>
Operating income	\$ 6,000	\$ 40,000

The company uses a flexible budget to analyze its performance and to measure the effect on operating income of the various factors affecting the difference between budgeted and actual operating income.

What additional information is needed for Folsom to calculate the dollar impact of a change in market share on operating income for November?

- A. Folsom's budgeted market share and the actual total market size.
- B. Folsom's budgeted market share and the budgeted total market size.
- C. Folsom's actual market share and the actual total market size.
- D. Folsom's budgeted market share, the budgeted total market size, and average market selling price.

A. The market share variance is calculated as follows: [(Actual Market Share – Expected Market Share) × Actual Market Size in Units] × Standard Weighted Average Contribution Margin per Unit. To determine the dollar impact of a change in market share on operating income, we need to know the actual market size in units, actual market share, budgeted market shares and standard weighted average contribution margin per unit. In the question, we are given the actual units sold, thus, we can calculate the actual market share if we obtain the additional information of actual market size in units. We also can calculate the standard weighted average contribution margin per unit from the given data. To complete the formula we also need to obtain information of budgeted (expected) market share.

B. The budgeted market share and actual total market size in units have to be known in order to calculate the impact of a change in market share. See the correct answer for a complete explanation.

C. The budgeted market share and actual total market size in units have to be known. See the correct answer for a complete explanation.

D. The budgeted market share and actual total market size in units have to be known. See the correct answer for a complete explanation.

Question 2 - CMA 1291 3-14 - Sales and Market Variances

Folsom Fashions sells a line of women's dresses. Folsom's performance report for November follows.

	Actual	Budget
Dresses sold	5,000	6,000
Sales	\$ 235,000	\$ 300,000
Variable costs	<u>(145,000)</u>	<u>(180,000)</u>
Contribution margin	\$ 90,000	\$ 120,000
Fixed costs	<u>(84,000)</u>	<u>(80,000)</u>
Operating income	\$ 6,000	\$ 40,000

The company uses a flexible budget to analyze its performance and to measure the effect on operating income of

the various factors affecting the difference between budgeted and actual operating income.

The effect of the sales quantity variance on the contribution margin for November is

- A. \$20,000 unfavorable.
- B. \$18,000 unfavorable.
- C. \$30,000 unfavorable.
- D. \$15,000 unfavorable.

A. This question is asking for the sales volume/quantity variance on the contribution margin that is calculated as follows: (Actual Sales Volume – Budgeted Sales Volume) × Standard Contribution per Unit. The total budgeted contribution margin was \$120,000, which gives us a \$20 contribution margin per unit (\$120,000 ÷ 6,000). Now we can calculate the sales volume variance: (5,000 – 6,000) × \$20 = (\$20,000) unfavorable. The actual sales volume was lower than budgeted, and that caused the negative impact of \$20,000 on the contribution margin.

B. This answer results from using the actual unit contribution margin instead of the budgeted unit contribution margin. See the correct answer for a complete explanation.

C. This answer is the total sales variance, which includes variances caused by differences in both the sales price and in the quantity sold. The total sales variance on the contribution margin is the difference between actual and budgeted amount of contribution margin. The sales volume/quantity variance is calculated as follows: (Actual Sales Volume – Budgeted Sales Volume) × Budgeted Contribution per Unit. See the correct answer for a complete explanation.

D. This is the sales price variance. See the correct answer for a complete explanation.

Question 3 - CMA 687 4-16 - Sales and Market Variances

The following information is available for the Mitchelville Products Company for the month of July.

	Master	
	Budget	Actual
Units	4,000	3,800
Sales revenue	\$60,000	\$53,200
Variable manufacturing costs	16,000	19,000
Fixed manufacturing costs	15,000	16,000
Variable selling and administrative expense	8,000	7,600
Fixed selling and administrative expense	9,000	10,000

The contribution margin volume variance for the month of July would be

- A. \$200 favorable.
- B. \$1,800 unfavorable.
- C. \$400 unfavorable.
- D. \$6,800 unfavorable.

A. This is the difference between budgeted and actual units. See the correct answer for a complete explanation.

B. The contribution margin volume variance is calculated as follows: (Actual Quantity – Budgeted Quantity) × Budgeted Unit Contribution Margin. The actual quantity is 3,800 and the budgeted quantity is 4,000. The budgeted contribution margin per unit is \$9 [(\$60,000 sales revenue – \$16,000 variable manufacturing costs – \$8,000 variable S&A costs) ÷ 4,000 units]. Therefore, the contribution margin volume variance is (3,800 – 4,000) × \$9 = \$(1,800) unfavorable.

C. This is the difference between the actual and budgeted variable S&A costs. This number does not mean anything.

D. This is the difference between actual and budgeted revenue. See the correct answer for a complete explanation.

Question 4 - CMA 695 3-29 - Sales and Market Variances

For a company that produces more than one product, the sales volume variance can be divided into which two of the following additional variances?

- A. Sales quantity variance and sales mix variance.
- B. Sales mix variance and sales price variance.
- C. Sales mix variance and production volume variance.
- D. Sales price variance and flexible budget variance.

A. The sales volume variance measures the impact of the difference in sales between actual and budgeted. When there is more than one product, this total volume variance will then be broken down into two sub-variances – the sales quantity variance and the sales mix variance. The sales mix variance determines the impact on the total sales volume variance made by the variance between the actual mix of products sold and the planned mix of products to be sold. The sales quantity variance determines the impact on the total sales volume variance made by the variance between the actual total quantity of products sold and the planned total quantity of products sold.

- B. This answer is incorrect. See the correct answer for a complete explanation.
 - C. This answer is incorrect. See the correct answer for a complete explanation.
 - D. This answer is incorrect. See the correct answer for a complete explanation.
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Question 5 - CIA 1185 IV-12 - Sales and Market Variances

Actual and budgeted information about the sales of a product are presented for June as follows.

	Actual	Budget
Units	8,000	10,000
Sales Revenue	\$92,000	\$105,000

The sales price variance for June was

- A. \$10,000 favorable.
- B. \$10,000 unfavorable.
- C. \$8,000 favorable.
- D. \$10,500 unfavorable.

A. This answer is the result of using the budgeted quantity of units to be sold (10,000) in the variance formula. The actual quantity of units sold (8,000) should be used. See the correct answer for a complete explanation.

B. The actual sales price (\$11.50) was higher than budgeted sales price (\$10.50), which means that variance is favorable. See the correct answer for a complete explanation.

C.

The sales price variance for revenue measures the impact of the difference in the sales price per unit between actual and budgeted amounts and is calculated as follows: (Actual Price per unit – Standard Price per unit) × Actual Quantity, or (AP – SP) × AQ.

The actual unit sales price is \$11.50 (\$92,000 ÷ 8,000). The budgeted unit sales price is \$10.50 (\$105,000 ÷ 10,000). The sales price variance is (\$11.50 – \$10.50) × 8,000, which equals \$8,000. Since the actual sales

price was higher than the budgeted sales price, the variance is positive. For an income item, a positive variance is favorable.

D. The actual sales price (\$11.50) was higher than budget (\$10.50), which means that variance is favorable. See the correct answer for a complete explanation.

Question 6 - CMA 695 3-27 - Sales and Market Variances

Clear Plus, Inc. manufactures and sells boxes of pocket protectors. The static master budget and the actual results for May appear below.

	Actuals	Static Budget
Unit sales	12,000	10,000
Sales	\$132,000	\$100,000
Variable costs of sales	70,800	60,000
Contribution margin	61,200	40,000
Fixed costs	32,000	30,000
Operating income	\$ 29,200	\$ 10,000

Which one of the following statements concerning Clear Plus, Inc.'s actual results for May is correct?

- A. The flexible budget variable cost variance is \$10,800 unfavorable.
- B. The sales price variance is \$32,000 favorable.
- C. The flexible budget variance is \$8,000 favorable.
- D. The sales volume variance is \$8,000 favorable.

A. To answer such a question we have to solve for each possible suggested statement. It is better to start with the easiest ones. The flexible budget variable cost variance is the difference between actual variable costs and the flexible budget variable costs. The standard variable cost is calculated using static (master) budget figures: $\$60,000 \div 10,000 = \6.00 . The flexible budget variable cost is calculated as the standard unit variable cost multiplied by the actual level of output ($\$6.00 \times 12,000 = \$72,000$). The flexible budget variable cost variance is $\$1,200$ favorable ($\$70,800 - \$72,000$). So this is not a correct statement.

B. To answer such a question we have to solve for each possible suggested statement. It is better to start with the easiest ones. The sales price variance measures the impact of the difference caused by a variance in price. When it is not specified what item's sales volume variance is referred to, we can assume the contribution margin. The sales price variance for the contribution margin is calculated as follows: (Actual Contribution per unit - Standard Contribution per unit) \times Actual Quantity. Actual contribution per unit is $\$5.10$ ($\$61,200 \div 12,000$), and the standard contribution margin is $\$4.00$ ($\$40,000 \div 10,000$). The sales price variance is therefore $\$13,200$ favorable ($\$5.10 - \4.00) $\times 12,000$. So this statement is not correct.

C. To answer such a question we have to solve for each possible suggested statement. It is better to start with the easiest ones. When it is not otherwise specified, the flexible budget variance equals the difference between actual operating income and the flexible budget operating income. The flexible budget contribution margin equals actual units times standard contribution margin or $\$48,000$ ($\$4.00$ standard contribution margin $\times 12,000$ actual quantity). Fixed costs in the flexible budget are the same as fixed costs in the flexible budget. Therefore, the flexible budget operating income equals flexible budget contribution margin less the master budget (static budget) fixed costs: $\$18,000$ ($\$48,000 - \$30,000$). Now we can determine the flexible budget variance as $\$11,200$ favorable ($\$29,200 - \$18,000$). So this statement is not correct.

D. To answer such a question we have to solve for each possible suggested statement. It is better to start with the easiest ones. The sales volume variance measures the impact of difference between actual sales volume and budgeted sales volume. When it is not specified what item's sales volume variance is referred

to, we can assume the contribution margin. The sales volume variance is calculated as follows: (Actual Sales Volume – Budgeted Sales Volume) × Standard Contribution per Unit. The standard contribution per unit is \$4.00 ($\$40,000 \div 10,000$). The sales volume variance is therefore \$8,000 favorable ($12,000 - 10,000$) × \$4.00. The variance is favorable as the actual quantity of units sold is greater than budgeted. So this statement is correct.

Question 7 - CIA 589 IV-14 - Sales and Market Variances

The following data are available for July:

	Budget	Actual
Sales	40,000 units	42,000 units
Selling price	\$6 per unit	\$5.70 per unit
Variable cost	\$3.50 per unit	\$3.40 per unit

What is the sales quantity variance for July?

- A. \$12,600 unfavorable.
- B. \$4,600 favorable.
- C. \$5,000 favorable.
- D. \$12,000 unfavorable.

A. The variance is favorable as the quantity actually sold (42,000) is greater than the budgeted quantity (40,000). See the correct answer for a complete explanation.

B.

The sales quantity variance, which is the same thing as the sales volume variance, measures the impact of the difference in sales volume between the actual results and the static budget. The sales quantity/volume variance for a single product or for a single product firm can be calculated for each variable income and expense item as well as for the contribution margin. If a question does not specify which line to use, as this one does not, use the contribution margin line.

For the contribution margin line, it is calculated as follows: (Actual Sales Volume – Budgeted Sales Volume) × Budgeted Contribution per Unit, or (AQ – SQ) × SP. The "AQ," actual quantity, is 42,000. The "SQ," budgeted quantity, is 40,000. The "SP," budgeted price, is the budgeted contribution margin per unit. That is \$2.50 per unit ($\$6 - \3.50).

This answer results from using the actual contribution margin per unit instead of the budgeted contribution margin per unit.

C.

The sales quantity variance, which is the same thing as the sales volume variance, measures the impact of the difference in sales volume between the actual results and the static budget. The sales quantity/volume variance for a single product or for a single product firm can be calculated for each variable income and expense item as well as for the contribution margin. If a question does not specify which line to use, as this one does not, use the contribution margin line.

For the contribution margin line, it is calculated as follows: (Actual Sales Volume – Budgeted Sales Volume) × Budgeted Contribution per Unit, or (AQ – SQ) × SP. The "AQ," actual quantity, is 42,000. The "SQ," budgeted quantity, is 40,000. The "SP," budgeted price, is the budgeted contribution margin per unit. That is \$2.50 per unit ($\$6 - \3.50). Thus the variance is $(42,000 - 40,000) \times \2.50 , or \$5,000. A positive variance for an income line or for the contribution margin line is a favorable variance, because it means the actual was higher than the budget.

D. The variance is favorable as the quantity actually sold (42,000) is greater than the budgeted quantity (40,000). See the correct answer for a complete explanation.

Question 8 - CIA 1190 IV-18 - Sales and Market Variances

The following exhibit reflects a summary of performance for a single item of a retail store's inventory for April.

	Actual Results	Flexible Budget Variances	Flexible Budget	Static (Master) Budget
Sales(units)	11,000		11,000	12,000
Revenue (sales)	\$208,000	\$(12,000) U	\$220,000	\$240,000
Variable costs	<u>121,000</u>	<u>(11,000) U</u>	<u>110,000</u>	<u>120,000</u>
Contribution Margin	\$ 87,000	\$(23,000) U	\$110,000	\$120,000
Fixed costs	<u>72,000</u>	<u>--</u>	<u>72,000</u>	<u>72,000</u>
Operating Income	\$ 15,000	\$(23,000) U	\$ 38,000	\$ 48,000

The sales volume variance is

- A. \$1,000 F.
- B. \$11,000 F.
- C. \$10,000 U.
- D. \$12,000 U.

A.

The sales volume variance measures the impact of the difference in sales volume between the actual results and the static budget. The sales volume variance for the contribution margin is the flexible budget contribution margin minus the static budget contribution margin. The sales volume variance is unfavorable as the flexible budget contribution margin is lower than the static (master) budget contribution margin. See the correct answer for a complete explanation.

B. The sales volume variance measures the impact of the difference in sales volume between the actual results and the static budget. The sales volume variance for the contribution margin is the flexible budget contribution margin minus the static budget contribution margin. The sales volume variance is unfavorable as the flexible budget contribution margin is lower than the static (master) budget contribution margin. See the correct answer for a complete explanation.

C.

The sales volume variance measures the impact of the difference in sales volume between the actual results and the static budget. The sales volume variance for a single product (or for a single product firm) can be calculated for each variable income and expense item as well as for the contribution margin. If a question does not specify which line to use, as this one does not, use the contribution margin line.

For the contribution margin line, it is calculated as follows: (Actual Sales Volume – Budgeted Sales Volume) × Budgeted Contribution per Unit, or (AQ – SQ) × SP. The "AQ," actual quantity, is 11,000. The "SQ," budgeted quantity, is 12,000. The "SP," budgeted price, is the budgeted contribution margin per unit. That is \$10 per unit (\$110,000 ÷ 11,000 or \$120,000 ÷ 12,000). Thus the variance is (11,000 – 12,000) × \$10, or (\$10,000). A negative variance for an income line or for the contribution margin line is an unfavorable variance, because it means the actual was lower than the budget.

We can also calculate the variance using the amounts given in the variance report. The sales volume variance for the contribution margin is the flexible budget contribution margin minus the static budget contribution margin. Actual sales volume times budgeted contribution per unit is the flexible budget contribution margin, i.e. \$110,000. Budgeted sales volume times budgeted contribution per unit is the static (master) budget contribution margin, i.e. \$120,000. \$110,000 – \$120,000 equals (\$10,000) unfavorable.

D.

The sales volume variance measures the impact of the difference in sales volume between the actual results and the static budget. The sales volume variance for the contribution margin is the flexible budget contribution margin minus the static budget contribution margin. This answer is the flexible budget variance for revenue, which is not an answer to the question. See the correct answer for a complete explanation.

Question 9 - CIA 593 IV-14 - Sales and Market Variances

For a single-product company, the sales volume variance is

- A. The difference between flexible budget and master budget sales volume, times master budget unit contribution margin.
- B. The difference between flexible budget and actual sales volume, times master budget unit contribution margin.
- C. The difference between actual and master budget sales volume, times actual unit contribution margin.
- D. The difference between flexible budget and master budget sales volume, times actual budget unit contribution margin.

A. The sales volume variance formula is: (Actual Sales Volume – Budgeted Sales Volume) × Budgeted Contribution per Unit. The budgeted contribution per unit is defined at the beginning of the year using the master budget. The budgeted sales volume is also defined at the beginning of the year and it is a master budget figure. Actual sales volume is the same thing as the flexible budget sales volume, because the flexible budget uses the actual level of output. Thus, the sales volume variance is the difference between the flexible budget and master budget sales volume, times master budget unit contribution margin.

B. There is no difference between the flexible budget and the actual sales volume, as the actual sales volume is used in calculating the flexible budget figures because the flexible budget uses the actual sales level.

C. The sales volume variance formula is: (Actual Sales Volume – Budgeted Sales Volume) × Budgeted Contribution per Unit. As we can see from the formula, the budgeted unit contribution margin is used in the calculation, not the actual contribution margin.

D. The sales volume variance basic formula is: (Actual Sales Volume – Budgeted Sales Volume) × Budgeted Contribution per Unit. As we can see from the formula, the budgeted unit contribution margin is used in the calculation, not the actual unit contribution margin. The actual sales volume and the flexible budget sales volume are the same amount, because the flexible budget uses the actual level of output..
