

## Financial performance

### Standard cost operating statement

The purpose of this statement is to reconcile the standard cost of actual production with the actual costs incurred by listing all the identified variances and adding or deducting as appropriate.

### Example operating statement

Budgeted/standard cost for actual production			125,000
Variances	Favourable	Adverse	
Direct materials price	500		
Direct materials usage		200	
Direct labour rate		600	
Direct labour efficiency	150		
Fixed overhead expenditure		2,000	
Fixed overhead capacity		300	
Fixed overhead efficiency	450		
Total variance	1,100	3,100	2,000
Actual cost of actual production			127,000

The variance has been added as it is adverse so will be an increase on the budget.

The starting point is to identify the standard cost of actual production, this will not be a given figure but will have to be calculated.

If a standard cost card is provided as shown below then the standard cost of actual production will be the standard cost for 1 unit multiplied by the number of units actually produced.

### Standard cost card for the production of 1 unit of Alpha

	Quantity	Cost per unit (£)	Total cost
Material	3 kg	6.00	18.00
Labour	2 hours	12.00	24.00
Fixed costs	2 hours	15.00	30.00
Total			72.00

Calculate the standard cost of actual production for a production volume of 5,000 units using the standard cost card.

**Click to display/hide the solution.**

**£360,000**

Working: 5,000 x £72 each

If the information is presented as budgeted costs compared to actual costs as shown below then the standard cost for one item has to be calculated and then multiplied by the actual volume.

The following budgetary control report has been provided.

	Budget		Actual	
Production (packs)		4,000		4,200
Direct materials	8,000 kgs	£28,000	8,530 kgs	£29,002
Direct labour	10,000 hrs	£72,000	10,350 hrs	£73,485
Fixed overheads		£124,000		£127,000
Total cost		£224,000		£229,487

Calculate the standard cost of actual production from the information in the table above.

**Click to display/hide the solution.**

**£235,200**

Working: The standard cost of 1 item is £224,000 / 4,000 = £56. Actual production is 4,200 so the standard cost of actual production is 4,200 x £56 = £235,200

In the computer based assessment all the variances will be given and your task will be to identify whether they are adverse or favourable as this information may not be supplied.

### **Materials – price variance**

Calculate both the standard cost per unit of material and the actual cost per unit of material by dividing the cost by the volume. If actual is more than standard then the variance is adverse, if it is less then the variance is favourable.

### **Materials – usage variance**

Calculate the standard usage for actual production by dividing the standard quantity by the budgeted volume and then multiplying by the actual volume and then compare this to the actual usage. If the standard is more than the actual then the variance is favourable, if it is less then the variance is adverse.

### **Labour – rate variance**

This is a similar calculation to the materials price variance calculation. Calculate both the standard rate per hour and the actual rate per hour. If the standard is higher then the variance is favourable, if it is lower then the variance is adverse.

**Labour – efficiency variance**

Calculate the standard hours for actual production by dividing the standard hours by the budgeted volume and then multiplying by the actual volume and then compare this to the actual hours.

If standard is more than actual then the variance is favourable, if it is less then the variance is adverse.

**Fixed overhead expenditure variance**

Compare budgeted and actual expenditure. If the budget is more than the actual then the variance is favourable, if the budget is less than the actual then the variance is adverse.

**Fixed overhead volume variance**

Compare budgeted and actual volume. If the budget is higher than the actual then the variance is adverse (less production = less overheads absorbed). If the budget is less than the actual then the variance is favourable.

**Fixed overhead capacity variance**

Compare budgeted hours and actual hours. If the budget is more than the actual then the variance is adverse (less hours = less overheads absorbed). If the budget is less than actual then the variance is favourable.

**Fixed overhead efficiency variance**

If overheads are absorbed on a labour–hours basis then the variance will be the same as the labour efficiency variance.

The following budgetary control report has been provided.

	Budget		Actual	
Production (packs)		4,000		4,200
Direct materials	8,000 kgs	£28,000	8,530 kgs	£29,002
Direct labour	10,000 hrs	£72,000	10,350 hrs	£73,485
Fixed overheads		£124,000		£127,000
Total cost		£224,000		£229,487

Using the information in the table below, identify which variances are favourable and which are adverse. Tick the relevant column for each variance and add an explanation.

**Click to display/hide the solution.**

Variance	£	Favourable	Adverse	Explanation
Material price	455		X	The actual price per kilogram, £3.40, is less than the standard price of £3.50, saving 10p per kilogram
Material usage	853	X		The standard usage for 4,200 units is $(8,000 \text{ kgs} / 4,000) \times 4,200 = 8,400 \text{ kgs}$ , which is less than the actual usage of 8,530 kilogram

Labour rate	1,035	X		The actual rate of pay of £7.10 per hour is less than the standard rate of £7.20, saving 10p per hour
Labour efficiency	1,080	X		The standard hours for 4,200 units is $(10,000\text{hrs} / 4,000) \times 4,200 = 10,500$ hours, which is less than the actual time of 10,350 hours
Fixed overhead expenditure	3,000		X	The actual expenditure is £3,000 more than the budget
Fixed overhead volume	6,200	X		The actual volume is more than the budget
Fixed overhead capacity	4,340	X		The hours worked are more than budgeted
Fixed overhead efficiency	1,860	X		This is the same as the labour efficiency variance, as overheads are absorbed on a labour-hour basis

Finally identify the actual cost of actual production, which will probably be the easiest one to identify as it will be given. In this example it is £229,487.

The task now is to put the variances in the operating statement and to net them off at the bottom. If the net variances are adverse then this must be added to the standard cost of actual production as adverse variances increase costs.

If the net variances are favourable then you must remember to put the amount in the statement as a negative number as it must be deducted from the standard cost of actual production, as favourable variances are in effect savings that will reduce the actual cost.

#### Pro forma operating statement

Budgeted/standard cost for actual production			235,200
Variances	Favourable	Adverse	
Direct materials price	853		
Direct materials usage		455	
Direct labour rate	1,035		
Direct labour efficiency	1,080		
Fixed overhead expenditure		3,000	
Fixed overhead capacity	4,340		

Fixed overhead efficiency	1,860		
Total variance	9,168	3,455	<b>-5,713</b>
<b>Actual cost of actual production</b>			<b>229,487</b>

The total favourable variances are more than the total adverse variances; this represents a saving from the standard cost and therefore must be deducted.

Note: Remember that since the fixed overhead capacity and efficiency variances when combined equate to the fixed overhead volume variance, then the volume variance will not be included in the operating statement if the capacity and efficiency variances are given as this would be a duplication.

### Marginal cost operating statement

If the question asks for a marginal cost operating statement then the statement will be laid out differently as the fixed costs are to be treated as a period cost and will be deducted in full in the period in which they are incurred.

The only fixed overhead variance that is relevant in these circumstances is the expenditure variance, as changes in volume are not expected to affect the fixed costs for the basic reason that they are fixed for the period.

The layout is shown in the operating statement below based on the information provided earlier and repeated here for convenience.

The following budgetary control report has been provided.

	Budget		Actual	
Production (packs)		4,000		4,200
Direct materials	8,000 kgs	£28,000	8,530 kgs	£29,002
Direct labour	10,000 hrs	£72,000	10,350 hrs	£73,485
Fixed overheads		£124,000		£127,000
Total cost		£224,000		£229,487

### Standard cost operating statement using marginal costing

<b>Standard marginal cost for actual production</b>			<b>105,000</b>
<b>Variances</b>			<b>124,000</b>
<b>Budgeted fixed overheads</b>			<b>229,000</b>
<b>Budgeted cost</b>			
<b>Variances</b>	<b>Favourable</b>	<b>Adverse</b>	
Direct materials price	853		
Direct materials usage		455	
Direct labour rate	1,035		
Direct labour efficiency	1,080		

Fixed overhead expenditure		3,000	
Total variance	2,968	3,455	<b>487</b>
<b>Actual cost of actual production</b>			<b>229,487</b>

Note: To get the standard marginal cost of actual production you only need to consider material and labour costs.

$$= (£28,000 + £72,000) \times 4,200 / 4,000 = £105,000$$