

Starlight planned for a production and sales volume of 20,000 units.

Sales	20,000
Revenues	\$1,300,000
Variable costs	\$704,000
Fixed costs	\$291,600

However, the Company actually makes and sells 19,000 units.

Required (10 pts)

- Compute the sales volume variance for operating income.
- If actual variable costs per unit was \$37, what was the flexible budget variance for variable costs?

1. ABC Company, operating in fixed costs, had 2014 sales of 200,000 units at a price of \$10 and 2014 fixed costs of \$200,000. The following table shows the operating results and cost behavior for 2014 results.

		Cost Behavior	
		Fixed	Variable
Sales			
Cost of goods sold	\$7,000,000		
Gross profit	4,000,000	20%	75%
Operating expenses			
Selling expenses	\$1,000,000	30%	70%
Administrative expense	500,000	60%	40%
Total operating expenses	1,500,000		
Operating profit	\$1,800,000		

Management is considering an expansion plan that will permit an increase of \$1,820,000 in yearly sales. The expansion will increase fixed costs by \$400,000, but will not affect unit price nor the relationship between sales and variable costs.

**Required (20 pts)**

- Draw the PV (OI) line based on the above 2014 results.
- If the proposal is accepted and sales remain at the 2014 level, what will be the operating results in 2015?
- Comment on the change in risk from 2014 and to 2015 with the proposed expansion?

5. The following data relating to direct materials cost for August of the current year were taken from the records of KD Company:

Actual data	
Quantity of direct materials used	32,000 lbs
Unit cost of direct materials	\$2.50 per pound
Units of finished product manufactured	41,250 units
Standard direct materials per unit of finished product	0.80 lbs
Variances	
Direct materials efficiency variance	
Direct materials price variance	\$2,400 F
	\$3,200 U

Required (10 pts)

- Determine the standard direct material cost per unit of finished product.

3. Units of production data for two departments for April 2015 are as follows:

	Cutting	Assembly
Beginning WIP	10,000 units (50% completed)	9,000 units (75% completed)
Completed and transferred to next stage	40,000 units	42,000 units
Ending WIP	8,000 units (75% completed)	7,000 units (25% completed)

All direct materials are added in Cutting department. No direct material is added in Assembly. Conversion costs are added evenly during production.

**Required (105pts)**

a) Determine the equivalent units of production for April for each of the two departments. The company uses the first-in, first-out method.

Units Cutting

Assembly

~~First In, First Out~~  
~~WIP~~  
~~Completed and transferred~~  
~~to next stage~~  
~~Account for~~

~~Units~~

1. Mt Company, operating at fixed capacity, sold 100,000 units at a price of \$71 per unit during 2014. Its income and cost behavior for 2014 follow:

		Costs Behavior	
		Fixed	Variable
Sales			
Cost of goods sold		25%	75%
Gross profit			
Operating expenses			
Selling expenses	\$1,000,000	30%	70%
Administrative expense	500,000	60%	40%
Total operating expenses			
Operating profit			

Management is considering an expansion plan that will permit an increase of \$1,420,000 in yearly sales. The expansion will increase fixed costs by \$400,000, but will not affect unit price nor the relationship between sales and variable costs.

Required (20 pts)

- Draw the PV (OI) line based on the above 2014 results.
- If the proposal is accepted and sales remain at the 2014 level, what will be the operating results in 2015?
- Comment on the change in risk from 2014 and to 2015 with the proposed expansion?

MCD Company manufactures Product XY 200. Standards and actual data follow:

Standards for direct materials per one unit of XY 200	5 lbs at \$5 per lb
Actual production of XY 200	7,500 units
Actual direct materials purchased	40,000 lbs for \$220,000
Actual direct materials used	36,000 lbs

Required (10 pts)

- a) Calculate the direct material variance at point of purchase and prepare the entry to record the variance.
  
  
  
  
  
  
  
  
  
  
- b) Calculate the direct material variance at point of production and prepare the entry to record the variance.

2. ME Inc. began manufacturing operations on May 1, 2015. During 2015, ME worked on 4 jobs. Production data follows:

	Direct Materials (\$)	Direct Labor (\$)
Job 1	15,750	12,600
Job 2	28,200	20,160
Job 3	21,400	17,640
Job 4	5,500	7,800

Factory overhead is applied at 60% of direct labor cost. Actual overhead for May was \$34,000. Jobs 1 and 2 were completed and sold for cash at 100% markup over production costs.

**Required(15 pts)**

- Record the completion and sales of jobs 1 and 2. Compute the gross profit on Jobs 1 and 2.
- ME disposes of under or over allocated overhead by charging directly cost of goods sold. Prepare the required journal entry to dispose of over or underallocated overhead.