

## CHAPTER 16: JOINT PRODUCTION COSTS

**QUESTION 1.** Red Tomato Company processes tomatoes into tomato juice, tomato sauce and tomato paste. During June 2003, the joint costs of processing the tomatoes were \$720,000. There was no beginning or ending inventories for the summer. Production and sales value information for June were as follows:

<u>Product</u>	<u>Cases</u>	<u>Separable Costs</u>	<u>Selling Price</u>
Tomato Sauce	120,000	\$5.00 per case	\$20 per case
Tomato Juice	200,000	6.00 per case	18 per case
Tomato Paste	150,000	4.00 per case	12 per case

**Required:**

- Determine the amount allocated to each product if the constant gross-margin percentage net realizable value method is used.
- Compute the cost per case for each product in June.

**QUESTION 2.** Big Tomato Canning Company processes tomatoes into tomato juice, tomato sauce and tomato paste. During July 2002, the joint costs of processing the tomatoes were \$600,000. There was no beginning or ending inventories for the summer. Production and sales value information for July were as follows:

<u>Product</u>	<u>Cases</u>	<u>Sales Value at Split off Point</u>	<u>Separable Costs</u>	<u>Selling Price</u>
Tomato Sauce	200,000	\$7 per case	\$3.00 per case	\$25 per case
Tomato Juice	150,000	10 per case	6.00 per case	20 per case
Tomato Paste	250,000	8 per case	4.00 per case	10 per case

**Required:**

- Determine the amount allocated to each product if the estimated net-realizable value method is used.
- Compute the cost per case for each product.
- Compute the gross profit from the sales of these products in July.

**Question 3.** Troy Company processes 50,000 gallons of direct materials to produce two products, Product X and Product Y. Product X sells for \$1 per gallon, and Product Y, the main product, sells for \$30 per gallon. The following information is for August:

	<u>Production</u>	<u>Sales</u>	<u>Beginning Inventory</u>	<u>Ending Inventory</u>
Product X:	5,375	5,000	0	375
Product Y:	10,000	9,000	0	1,000

The manufacturing costs totaled \$150,000.

- How much is **cost of the ending inventory** under product by-product method (method A)?
- What is the **gross margin** for Troy Company under product by-product method (method A)?

**Question 4.** Healthy Drink Company processes direct materials up to the split off point, where two products, Classic and Light, are obtained. The following information was collected for the month of July:

	<u>Classic</u>	<u>Light</u>
Production:	1,500 liters	500 liters
Sales:	\$17.00 per liter	\$20.00 per liter

Cost of purchasing of direct materials and processing it up to the split off point to yield a total of 2,000 liters of good products was \$15,000.

Classic may be processed further to yield Superfine for an additional processing cost of \$2,500. But this additional process normally results in loss of %10 of the amounts entering the process. Superfine is sold for \$20.00 per liter.

Light may be processed further to yield Soft for an additional processing cost of \$1,500. But this additional process normally results in loss of %20 of the amounts entering the process. Soft is sold for \$30.00 per liter.

There were no beginning and ending inventory balances.

- Allocate the joint costs** of \$15,000 to Superfine and Soft drinks, using either estimated net-realizable method or constant gross margin method.
- Do you prefer to sell** Classic at splioff point or do the further processes and sell as Superfine drink?
- Do you prefer to sell** Light at splioff point or do the further processes and sell as Soft drink?

**Question 5.** Tim Rossy is the owner and the operator of Rossy Bottling, a bulk soft-drink producer. A single production process yieldstwo bulk soft drinks: RDL (the main product) and TSK (the byproduct). Both products are fully processed at the split off point, and there are no seperable costs.

For October 2003, the cost of thesoft drink operations is \$120,000. Production and sales data are as follows:

	<u>Production</u> <u>(in Gallons)</u>	<u>Sales</u> <u>(in Gallons)</u>	<u>Selling price</u> <u>per Gallon</u>
Main Product: RDL	10,000	8,000	\$20
Byproduct: TSK	2,000	1,400	2

There were no beginning inventories on October 1, 2003.

**Required**

What is the gross margin for Rossy Bottling under under production by-product method (method A).