From the following list, tell whether each item is a joint cost or a separable cost.

a. Cost of processing crude oil in a gasoline refinery
b. Cost of processing lumber at a sawmill
c. Cost of processing lumber into different lengths and sizes at a sawmill
d. Cost of raw tomato processing when tomatoes are to be used for different soups in a soup plant
e. Cost of canning soup in a soup plant
f. Cost of molding plastic for use in making different toys on an assembly line
g. Cost of refining gasoline for use in automobiles
h. Cost of processing pulp for human consumption
i. Cost of processing pulp into paper
j. Cost of processing pulp into cardboard

For each of the following items, tell whether it is a main product, joint product, byproduct, or scrap.

a. Bones from a butcher shop
b. Sawdust from a sawmill
c. Sawdust from a furniture manufacturer
d. Fuel oil from petroleum processing
e. Salt from a saltworks process
f. Broth from cooking food
g. Raw milk for dairy processing
h. Skim milk from dairy processing

Prejudicial pricing is a type of price discrimination that
a. allows prices to be set to the level of variable costs.
b. is required when a company declares bankruptcy so that it can sell remaining goods quickly.
c. is used in the food industry for perishable goods.
d. deliberately sets prices very low, sometimes even below costs, to minimize competition.

Which of the following statements regarding backflush costing is FALSE?

a. Backflush costing has only one category of costs, conversion costs.
b. Backflush costing does not have a work-in-process account.
c. Costs are transferred out almost immediately after being initially recorded.
d. Some backflush costing systems eliminate the finished goods inventory account and transfer costs directly to cost of goods sold.

Which of the following statements is FALSE?

a. Just-in-time is limited to manufacturing functions.
b. One feature of a just-in-time production line is its "demand-pull".
c. Downstream work stations are the driving force of the just-in-time production line.
d. Just-in-time focuses on eliminating non-value-added activities.
Hans Carpenter, controller, discussed the pricing of a new product with the sales manager, Mary Bass. What major influences must Mary and Hans consider in pricing the new product? Discuss each briefly.

3 major influences are Cost, Customer, and Competition.

Cost: Companies should price their products so that it would exceed their costs. If it doesn’t, companies will not make a profit and will go out of business. Companies should price their products from the eyes of the customer. A too high of a price can result in customers substituting to another product. Competition could have major influence on pricing. If a competitor comes out with a low price, the company may have to lower their price to stay competitive.

Car Parts Company manufactures a part for use in its production of automobiles. When 10,000 items are produced, the costs per unit are:

<table>
<thead>
<tr>
<th>Cost Component</th>
<th>Per Unit Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct materials</td>
<td>$5</td>
</tr>
<tr>
<td>Direct manufacturing</td>
<td>$30</td>
</tr>
<tr>
<td>labor</td>
<td></td>
</tr>
<tr>
<td>Variable manufacturing</td>
<td>$12</td>
</tr>
<tr>
<td>overhead</td>
<td>$15</td>
</tr>
<tr>
<td>Fixed manufacturing</td>
<td></td>
</tr>
<tr>
<td>overhead</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$104</strong></td>
</tr>
</tbody>
</table>

Auto Company has offered to sell to Car Parts Company 10,000 units of the part for $50. The plant facilities could be used to manufacture another part at a savings of $30,000 if Car Parts accepts the offer. In addition, $10 per unit of fixed manufacturing overhead on the original part would be eliminated.

Required:

a. What is the relevant per unit cost for the original part? $104

b. Which alternative is best for Car Parts Company? By how much?

Buy part: $50 x 10,000 = $500,000

Avoiding by not manufacturing: 10,000 x $10 = $100,000

Total savings: $500,000 - $100,000 = $400,000

Better off to manufacture another part.
Sweet Sugar Company processes sugar beets into three products. During April, the joint costs of processing were $240,000. Production and sales value information for the month were as follows:

<table>
<thead>
<tr>
<th>Product</th>
<th>Units Produced</th>
<th>Splitoff Point</th>
<th>Separable Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sugar</td>
<td>12,000</td>
<td>80,000</td>
<td>24,000</td>
</tr>
<tr>
<td>Sugar syrup</td>
<td>8,000</td>
<td>70,000</td>
<td>64,000</td>
</tr>
<tr>
<td>Fructose syrup</td>
<td>4,000</td>
<td>50,000</td>
<td>32,000</td>
</tr>
</tbody>
</table>

Required:

Determine the amount of joint cost allocated to each product if the sales value at splitoff method is used.

Lovely's Cake Shop makes three types of cakes: White, Chocolate, and Swirl, on one assembly line that has a limit of 400 labor hours per week. Lovelly can sell all the cakes it can make under current operating capacity. Manufacturing information per cake for each product is as follows:

<table>
<thead>
<tr>
<th></th>
<th>White</th>
<th>Chocolate</th>
<th>Swirl</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selling price</td>
<td>$15</td>
<td>$16</td>
<td>$20</td>
</tr>
<tr>
<td>Variable costs</td>
<td>10</td>
<td>11</td>
<td>18</td>
</tr>
<tr>
<td>Labor-hours per cake</td>
<td>0.4</td>
<td>0.2</td>
<td>0.4</td>
</tr>
</tbody>
</table>

Requirements:

Determine the weekly contribution margin when all labor-hours are allocated to the product with the highest:

a. Unit selling price. Swirl
b. Unit contribution margin. White

c. Contribution per labor-hour. Swirl

\[ \text{21,000 contribution margin} \]
Clearwater Company operates a wine outlet in a tourist area. One gallon of bottles sell for $12. Daily fixed costs are $3,000, and variable costs are $6 per gallon. An average of 750 gallons are sold each day. Clearwater has a capacity of 1,000 gallons per day.

Required:

a. Determine the average cost per gallon.

b. A bus loaded with 40 senior citizens stops by at closing time and the tour director offers Clearwater $200 for 40 gallons. Clearwater refuses, saying they would lose $6.00 on each gallon. Is Clearwater correct about the $3,000? Why or why not?

c. A fund-raising organization has offered Clearwater a one-year contract to buy 300 gallons a day for $7.50 each. Should they accept the offer? Why or why not?
A distributor from Europe has offered to buy 20,000 units at $60 per unit during 1991. Assume that fixed (including variable selling expenses) will be at the 1990 level during 1991. If Enron accepts this offer and also sells at the regular price, what would be the total operating income for 1991? Assume that variable selling costs will be incurred on this and all transactions as a result of a sales contract.

Special Order

\[
\begin{align*}
\text{Revenue} & \quad 20,000 \times 60 = 1,200,000 \quad - \quad \text{Cost} \\
& \quad 20,000 \times 45 = 900,000 \\
\text{Operating income from Special order} & \quad = 300,000 \\
\text{Total} & \quad 300,000 + 90,000 = 390,000
\end{align*}
\]

\text{Ans.} \quad \$390,000