

## Problem 1

Merchant Co. expects to sell 10,000 units at \$120 each. Each unit is expected to require 2lbs. of material @ \$10/lb. and 3 direct labor hours @ \$5/DLH. The overhead rate is estimated to be \$15/DLH. The beginning inventories are: DM 1,000 lbs. and Finished Goods 2,000 units. The budgeted ending inventories are: DM 2,000 lbs. and Finished Goods 1,000 units.

- What is Merchant Co's budgeted sales (in \$)?
  - What is Merchant Co's budgeted production (in units)?
  - Assuming a production of 9,500 units, what is the budgeted materials purchase (in lbs.& \$)?
  - Based on your answer to (b), what is the budgeted cost per unit?
  - Based on your answer to (b), what is the budgeted cost of goods sold?
  - Based on your answer to (b), what is the budgeted cost for DL & FOH respectively?
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### What is Merchant Co's budgeted sales (in \$)?

Budgeted sales = Budgeted unit sales \* Budgeted selling price per unit  
10,000 units \* \$120 = **\$1,200,000**

### What is Merchant Co's budgeted production (in units)?

Budgeted unit sales + Budgeted FG ending inventory – FG beginning inventory  
10,000 units + 1,000 units – 2,000 units = **9,000 units**

### Assuming a production of 9,500 units, what is the budgeted materials purchase (in lbs.& \$)?

Budgeted materials required + Budgeted materials EI - materials BI  
(9,500 units \* 2lbs) + 2,000 lbs – 1,000 lbs. = **20,000 lbs**  
20,000 lbs \* \$10/lb = **\$200,000**

### What is the budgeted cost per unit?

DM cost/unit + DL cost/unit + FOH cost/unit  
(2lbs \* \$10/lb) + (3 DL hours \* \$5/DL hour) + (3 DL hours \* \$15/DL hour)  
\$20 + \$15 + \$45 = **\$80**

### What is the budgeted cost of goods sold?

Budgeted cost per unit \* expected units to be sold  
\$80 \* 10,000 = **\$800,000**

### Based on your answer to (b), what is the budgeted cost for DL & FOH respectively?

DL cost/unit \* budgeted production  
(3 DL hours \* \$5/DL hour) \* 9,000 units = **\$135,000**  
FOH cost/unit \* budgeted production  
(3 DL hours \* \$15/DL hour) \* 9,000 units = **\$405,000**

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