Management Accounting Chapter 2 Exercises

2-1 **Direct, indirect, fixed, and variable costs.** Wonder Bakery manufactures two types of bread, which it sells as wholesale products to various specialty retail bakeries. Each loaf of bread requires a three-step process. The first step is mixing. The mixing department combines all of the necessary ingredients to create the dough and processes it through high-speed mixers. The dough is then left to rise before baking. The second step is baking, which is an entirely automated process. The baking department molds the dough into its final shape and bakes each loaf of bread in a high-temperature oven. The final step is finishing, which is an entirely manual process. The finishing department coats each loaf of bread with a special glaze, allows the bread to cool, and then carefully packages each loaf in a specialty carton for sale in retail bakeries.
1. Costs involved in the process are listed next. For each cost, indicate whether it is a direct variable, direct fixed, indirect variable, or indirect fixed cost, assuming "units of production of each kind of bread" is the cost object.

- Costs:
- Yeast
- Flour
- Packaging materials
- Depreciation on ovens
- Depreciation on mixing machines
- Rent on factory building
- Fire insurance on factory building
- Factory utilities
- Finishing department hourly laborers
- Mixing department manager
- Materials handlers in each department
- Custodian in factory
- Night guard in factory
- Machinist (running the mixing machine)
- Machine maintenance personnel in each department
- Maintenance supplies for factory
- Cleaning supplies for factory

2. If the cost object were the "mixing department" rather than units of production of each kind of bread, which preceding costs would now be direct instead of indirect costs?

2-2 **Classification of costs, merchandising sector.** Band Box Entertainment (BBE) operates a large store in Atlanta, Georgia. The store has both a movie (DVD) section and a music (CD) section. BBE reports revenues for the movie section separately from the music section. Classify each cost item **(A–H)** as follows:
a. Direct or indirect (D or I) costs of the total number of DVDs sold.
b. Variable or fixed (V or F) costs of how the total costs of the movie section change as the total number of DVDs sold changes. (If in doubt, select on the basis of whether the total costs will change substantially if there is a large change in the total number of DVDs sold.)
You will have two answers (D or I; V or F) for each of the following items:

Cost Item	(D or I)	(V or F)
A . Annual retainer paid to a video distributor		
B. Cost of store manager's salary		
C. Costs of DVDs purchased for sale to customers		
D. Subscription to DVD Trends magazine		
E. Leasing of computer software used for financial budgeting at the BBE store		
F. Cost of popcorn provided free to all customers of the BBE store		
G. Cost of cleaning the store every night after closing		
H. Freight-in costs of DVDs purchased by BBE		

2-3 **Variable costs, fixed costs, relevant range.** Dotball Candies manufactures jaw-breaker candies in a fully automated process. The machine that produces candies was purchased recently and can make 4,400 per month. The machine costs $9,500 and is depreciated using straight-line depreciation over 10 years assuming zero residual value. Rent for the factory space and warehouse and other fixed manufacturing overhead costs total $1,300 per month. Dotball currently makes and sells 3,100 jaw-breakers per month. Dotball buys just enough materials each month to make the jaw-breakers it needs to sell. Materials cost 10 cents per jawbreaker. Next year Dotball expects demand to increase by 100%. At this volume of materials purchased, it will get a 10% discount on price. Rent and other fixed manufacturing overhead costs will remain the same.

1. What is Dotball's current annual relevant range of output?

2. What is Dotball's current annual fixed manufacturing cost within the relevant range? What is the annual variable manufacturing cost?

3. What will Dotball's relevant range of output be next year? How, if at all, will total annual fixed and variable manufacturing costs change next year? Assume that if it needs to Dotball could buy an identical machine at the same cost as the one it already has.

2-4 **Flow of Inventoriable Costs.** Renka's Heaters selected data for October 2014 are presented here (in millions):

Direct materials inventory 10/1/2014	$ 105
Direct materials purchased	365
Direct materials used	385
Total manufacturing overhead costs	450
Variable manufacturing overhead costs	265
Total manufacturing costs incurred during October 2014	1,610
Work-in-process inventory 10/1/2014	230
Cost of goods manufactured	1,660
Finished goods inventory 10/1/2014	130
Cost of goods sold	1,770

Calculate the following costs:

1. Direct materials inventory 10/31/2014

2. Fixed manufacturing overhead costs for October 2014

3. Direct manufacturing labor costs for October 2014

4. Work-in-process inventory 10/31/2014

5. Cost of finished goods available for sale in October 2014

6. Finished goods inventory 10/31/2014

2-5 **Total costs and unit costs, service setting.** The Big Event (TBE) recently started a business organizing food and music at weddings and other large events. In order to better understand the profitability of the business, the owner has asked you for an analysis of costs—what costs are fixed, what costs are variable, and so on, for each event. You have the following cost information:

Music costs: $10,000 per event
Catering costs: Food: $65 per guest
Setup/cleanup: $15 per guest
Fixed fee: $4,000 per event

The Big Event has allowed the caterer, who is also new in business, to place business cards on each table as a form of advertising. This has proved quite effective, and the caterer gives TBE a discount of $5 per guest in exchange for allowing the caterer to advertise.

1. Suppose 150 persons attend the next event. What is TBE's total net cost and the cost per attendee?
2. Suppose instead that 200 persons attend. What is TBE's total net cost and the cost per attendee.
3. How should TBE charge customers for its services? Explain briefly.