
FOTAMAT

Check list

Video	Done	Comment
1		
2		
3		
4		
5		
6		
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8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

CHAPTER 6

Variable costing and segment reporting tools for management

1

- Variable costs = DM + DL + variable MOH
- Variable costing = direct costing = marginal costing.
- Absorption costing: treats all the costs as a product cost.
- absorption costing = full cost method.
- product cost will be in inventory, when sold it will be expense.
- period cost always expensed in its period.
- selling and administrative expense is always period cost.

	Fixed MOH
Variable costing	Period cost || will be recorded as expense each period
Absorption costing •	Product cost || will be recorded as • inventory until it is sold, then after selling, it will be expense "COGS"

1	Variable manufacturing overhead costs are treated as product costs under both absorption and variable costing.	True
2	Absorption costing treats all manufacturing costs as product costs.	True
3	Under variable costing, fixed manufacturing overhead is treated as a product cost.	False
4	Under variable costing, all variable production costs are treated as product costs.	True
5	Under variable costing, an increase in fixed manufacturing overhead will affect the unit product cost.	False
6	Under variable costing, only variable production costs are treated as product costs.	True
7	Absorption costing treats all fixed costs as product costs.	False

8) How would the following costs be classified (product or period) under variable costing at a retail clothing store?

	Cost of purchasing clothing	Sales commissions
A)	Product	Product
B)	Product	Period
C)	Period	Product
D)	Period	Period

A) Choice A
B) Choice B
C) Choice C
D) Choice D

9) Which of the following costs at a manufacturing company would be treated as a product cost under variable costing?
A) direct material cost
B) property taxes on the factory building
C) sales manager's salary
D) sales commissions

10) A cost that would be included in product costs under both absorption costing and variable costing is:
A) supervisory salaries.
B) factory rent.
C) variable manufacturing costs.
D) variable selling expenses.
11) The costing method that treats all fixed costs as period costs is:
A) absorption costing.
B) job-order costing.
C) variable costing.
D) process costing.

12) Assuming that direct labor is a variable cost, the primary difference between the absorption and variable costing is that:

A) variable costing treats only direct materials and direct labor as product cost while absorption costing treats direct materials, direct labor, and the variable portion of manufacturing overhead as product costs.

B) variable costing treats direct materials, direct labor, the variable portion of manufacturing overhead, and an allocated portion of fixed manufacturing overhead as product costs while absorption costing treats only direct materials, direct labor, and the variable portion of manufacturing overhead as product costs.

C) variable costing treats only direct materials, direct labor, the variable portion of manufacturing overhead, and the variable portion of selling and administrative expenses as product cost while absorption costing treats direct materials, direct labor, the variable portion of manufacturing overhead, and an allocated portion of fixed manufacturing overhead as product costs.

D) variable costing treats only direct materials, direct labor, and the variable portion of manufacturing overhead as product costs while absorption costing treats direct materials, direct labor, the variable portion of manufacturing overhead, and an allocated portion of fixed manufacturing overhead as product costs.

2

		Per unit	Per month
Selling price		100,000	
Direct materials		19,000	
Direct labor		5,000	
Variable MOH		1,000	
Fixed MOH			70,000
Variable selling and administrative expense		10,000	
Fixed selling and administrative expense			20,000
	January	February	March
Beginning inventory	0	0	1
Units produced	1	2	4
Units sold	1	1	5
Ending inventory	0	1	0

Variable costing contribution format income statement			
	January	February	March
Sales			
Variable expense:			
COGS			
Variable selling and administrative expense			
Total variable expense			
Contribution margin			
Fixed expense:			
Fixed MOH			
Fixed selling and administrative expense			
Total fixed expense			
Net operating income (loss)			

Absorption costing income statement			
	January	February	March
Sales			
COGS			
Contribution margin			
selling and administrative expense			
Net operating income (loss)			

	January	February	March
Variable costing	(25,000)	(25,000)	235,000
Absorption costing	(25,000)	(10,000)	200,000
Units produced	1	2	4
Units sold	1	1	5

- When the units produced exceed the units sold and hence inventories increase, net operating income is higher under absorption costing than under variable costing. This is because some of the fixed MOH is deferred in inventories

- When the units sold exceed the units produced and hence inventories decrease, net operating income is lower under absorption costing than under variable costing. This is because some of the fixed MOH of previous periods is released from inventories under absorption costing.

- When the units produced and the units sold are equal, no change in inventories occurs and absorption costing and variable costing net operating incomes are the same.

Variable Product cost = DL + DM + V.MOH
Absorption product cost = DL + DM + V.MOH + (Fixed MOH / Unit produced)
COGS = product cost * units sold
Variable period cost = (V. selling and Adm. Expense * unit sold) + Fixed selling and Adm. Expense +Fixed MOH
Absorption period cost = (V. selling and Adm. Expense * unit sold) + Fixed selling and Adm. Expense
Ending inventory value = product cost * unsold

E6-1

Ida Sidha Karya company is a family owned company located in the village of Gianyar on the island of Bali in Indonesia. The company produced a handcrafted Balinese musical instrument called a gamelan that is similar to a xylophone. The gamelans are sold for $850. Selected data for the company's operation last year follows:

Units in beginning inventory	0
Units produced	250
Units sold	225
Units in ending inventory	25
Variable costs per unit:	
Direct materials	$100
Direct labor	$320
Variable MOH	$40
Variable selling and administrative	$20
Fixed costs:	
Fixed MOH	$60,000
Fixed selling and administrative	$20,000

1-assume that the company uses absorption costing. Compute the unit product cost for one gamelan.

2- assume that the company uses variable costing. Compute the unit product cost for one gamelan.

E6-2

Same E6-1 questions

The absorption costing income statement prepared by the company's accountant for the last year appears as shown:

Sales	$191,250
Cost of goods sold	157,500
Gross margin	33,750
Selling and administrative expense	24,500
Net operating income	9,250

1-under absorption costing, how much fixed manufacturing overhead cost is included in the company's inventory at the end of last year?

2-prepare an income statement for the last year using variable costing. Explain the difference in net operating income between the two costing methods.

1	Variable costing is more compatible with cost-volume-profit analysis than is absorption costing.	TRUE
2	Under the absorption costing method, a company can increase profits simply by increasing the number of units produced.	TRUE
3	Net operating income computed using absorption costing will always be less than net operating income computed using variable costing.	FALSE
4	Under absorption costing, a portion of fixed manufacturing overhead cost is released from inventory when production volume exceeds sales volume.	FALSE

1) A manufacturing company that produces a single product has provided the following data concerning its most recent month of operations:

Selling price	$	121
Units in beginning inventory		0
Units produced		6,000
Units sold		5,600
Units in ending inventory		400
Variable costs per unit:		
Direct materials	$	38
Direct labor	$	53
Variable manufacturing overhead	$	3
Variable selling and administrative expense	$	11
Fixed costs:		
Fixed manufacturing overhead	$	60,000
Fixed selling and administrative expense	$	28,000

What is the total period cost for the month under variable costing?
A) $149,600
B) $60,000
C) $88,000
D) $89,600

2) A company produces a single product. Variable production costs are $21 per unit and variable selling and administrative expenses are $4 per unit. Fixed manufacturing overhead totals $30,000 and fixed selling and administration expenses total $36,000. Assuming a beginning inventory of zero, production of 6,000 units and sales of 5,600 units, the dollar value of the ending inventory under variable costing would be:
A) $10,000
B) $8,400
C) $12,000
D) $14,400

3) Mullee Corporation produces a single product and has the following cost structure:

Number of units produced each year		7,000
Variable costs per unit:		
Direct materials	$	51
Direct labor	$	12
Variable manufacturing overhead	$	2
Variable selling and administrative expense	$	5
Fixed costs per year:		
Fixed manufacturing overhead	$	441,000
Fixed selling and administrative expense	$	112,000

The absorption costing unit product cost is:
A) $149 per unit
B) $65 per unit
C) $63 per unit
D) $128 per unit

4) Shun Corporation manufactures and sells a hand held calculator. The following information relates to Shun's operations for last year:

Unit product cost under variable costing	$	5.20per unit
Fixed manufacturing overhead cost for the year	$	260,000
Fixed selling and administrative expense for the year	$	180,000
Units (calculators) produced and sold		400,000

What is Shun's absorption costing unit product cost for last year?
A) $4.10 per unit
B) $4.55 per unit
C) $5.85 per unit
D) $6.30 per unit

5) Kern Corporation produces a single product. Selected information concerning the operations of the company follow:

Units in beginning inventory	0
Units produced	10,000
Units sold	9,000

Direct materials	$ 40,000
Direct labor	$ 20,000
Variable manufacturing overhead	$ 12,000
Fixed manufacturing overhead	$ 25,000
Variable selling and administrative expenses	$ 4,500
Fixed selling and administrative expenses	$ 30,000

Assume that direct labor is a variable cost.

Under variable costing, the value of the ending finished goods inventory would be:
A) $7,200
B) $7,650
C) $8,000
D) $9,700

6) Beach Corporation, which produces a single product, budgeted the following costs for its first year of operations. These costs are based on a budgeted volume of 30,000 towels produced and sold:

Direct materials	$ 96,000
Direct labor	$ 48,000
Variable manufacturing overhead	$ 72,000
Fixed manufacturing overhead	$ 60,000
Variable selling and administrative expenses	$ 12,000
Fixed selling and administrative expenses	$ 36,000

During the first year of operations, Beach Corporation actually produced 30,000 towels but only sold 24,000 towels. Actual costs did not fluctuate from the cost behavior patterns described above. The 24,000 towels were sold for $16 per towel. Assume that direct labor is a variable cost.

What is the total cost that would be assigned to Beach Corporation's finished goods inventory at the end of the first year of operations Under variable costing?
A) $43,200
B) $45,600
C) $55,200
D) $64,800

7) **two questions** Davison Corporation, which has only one product, has provided the following data concerning its most recent month of operations:

Selling price	$	95
Units in beginning inventory		0
Units produced		5,000
Units sold		4,900
Units in ending inventory		100
Variable costs per unit:		
Direct materials	$	26
Direct labor	$	40
Variable manufacturing overhead	$	1
Variable selling and administrative expense	$	4
Fixed costs:		
Fixed manufacturing overhead	$	40,000
Fixed selling and administrative expense	$	73,500

What is the total period cost for the month under variable costing?
A) $133,100
B) $113,500
C) $40,000
D) $93,100

What is the total period cost for the month under the absorption costing?
A) $93,100
B) $133,100
C) $40,000
D) $73,500

8) Elbrege Corporation manufactures a single product. The company has supplied the following data:

Selling price per unit	$	30
Variable costs per unit:		
Production	$	7
Selling and administrative	$	4
Fixed costs per year:		
Production	$	75,000
Selling and administrative	$	50,000

There was no beginning inventory. During the year 25,000 units were produced and 20,000 units were sold.

Under absorption costing, the unit product cost would be:
A) $7 per unit
B) $16 per unit
C) $11 per unit
D) $10 per unit

Two next questions

9)Baughn Corporation, which has only one product, has provided the following data concerning its most recent month of operations:

Selling price	$	115
Units in beginning inventory		0
Units produced		6,600
Units sold		6,400
Units in ending inventory		200
Variable costs per unit:		
Direct materials	$	26
Direct labor	$	46
Variable manufacturing overhead	$	7
Variable selling and administrative expense	$	9
Fixed costs:		
Fixed manufacturing overhead	$	105,600
Fixed selling and administrative expense	$	51,200

What is the unit product cost for the month under variable costing?
A) $104 per unit
B) $79 per unit
C) $88 per unit
D) $95 per unit

What is the unit product cost for the month under absorption costing?
A) $79 per unit
B) $95 per unit
C) $104 per unit
D) $88 per unit

Two next questions

10) Ross Corporation produces a single product. The company has direct materials costs of $8 per unit, direct labor costs of $6 per unit, and manufacturing overhead of $10 per unit. Sixty percent of the manufacturing overhead is for fixed costs. In addition, variable selling and administrative expenses are $2 per unit, and fixed selling and administrative expenses are $3 per unit at the current activity level. Assume that direct labor is a variable cost.

Under absorption costing, the unit product cost is:

A) $24 per unit
B) $20 per unit
C) $26 per unit
D) $29 per unit

Under variable costing, the unit product cost is:

A) $24 per unit
B) $20 per unit
C) $18 per unit
D) $21 per unit

11) Erie Corporation manufactures a single product that it sells for $35 per unit. The company has the following cost structure:

Variable costs per unit:	
Production	$ 8
Selling and administrative	$ 5
Fixed costs per year:	
Production	$ 82,500
Selling and administrative	$ 60,000

There were no units in inventory at the beginning of the year. During the year 30,000 units were produced and 25,000 units were sold.

Under absorption costing, the unit product cost would be:

A) $8.00 per unit
B) $17.75 per unit
C) $13.00 per unit
D) $10.75 per unit

Two next questions

12)Bryans Corporation has provided the following data for its two most recent years of operation:

Selling price per unit	$ 53
Manufacturing costs:	
Variable manufacturing cost per unit produced:	
Direct materials	$ 13
Direct labor	$ 6
Variable manufacturing overhead	$ 5
Fixed manufacturing overhead per year	$ 63,000
Selling and administrative expenses:	
Variable selling and administrative expense per unit sold	$ 4
Fixed selling and administrative expense per year	$ 71,000

	Year 1	Year 2
Units in beginning inventory	0	3,000
Units produced during the year	9,000	7,000
Units sold during the year	6,000	7,000
Units in ending inventory	3,000	3,0000

The unit product cost under absorption costing in Year 1 is closest to:
A) $35.00
B) $31.00
C) $7.00
D) $24.00

The unit product cost under absorption costing in Year 2 is closest to:
A) $33.00
B) $9.00
C) $24.00
D) $37.00

13) Moskowitz Corporation has provided the following data for its two most recent years of operation:

Selling price per unit	$ 91
Manufacturing costs:	
Variable manufacturing cost per unit produced:	
Direct materials	$ 13
Direct labor	$ 7
Variable manufacturing overhead	$ 3
Fixed manufacturing overhead per year	$ 480,000
Selling and administrative expenses:	
Variable selling and administrative expense per unit sold	$ 6
Fixed selling and administrative expense per year	$ 84,000

	Year 1	Year 2
Units in beginning inventory	0	3,000
Units produced during the year	12,000	10,000
Units sold during the year	9,000	10,000
Units in ending inventory	3,000	3,000

The unit product cost under variable costing in Year 1 is closest to:
A) $63.00
B) $69.00
C) $23.00
D) $29.00

14) Krepps Corporation produces a single product. Last year, Krepps manufactured 20,000 units and sold 15,000 units. Production costs for the year were as follows:

Direct materials	$ 170,000
Direct labor	$ 110,000
Variable manufacturing overhead	$ 200,000
Fixed manufacturing overhead	$ 240,000

Sales totaled $825,000 for the year, variable selling and administrative expenses totaled $108,000, and fixed selling and administrative expenses totaled $165,000. There was no beginning inventory. Assume that direct labor is a variable cost.

The contribution margin per unit was:
A) $23.80 per unit
B) $31.00 per unit
C) $25.60 per unit
D) $19.00 per unit

Two next questions

15)Smidt Corporation has provided the following data for its two most recent years of operation:

Manufacturing costs:	
Variable manufacturing cost per unit produced:	
Direct materials	$ 9
Direct labor	$ 5
Variable manufacturing overhead	$ 5
Fixed manufacturing overhead per year	$ 140,000
Selling and administrative expenses:	
Variable selling and administrative expense per unit sold	$ 5
Fixed selling and administrative expense per year	$ 65,000

	Year 1	Year 2
Units in beginning inventory	0	3,000
Units produced during the year	10,000	7,000
Units sold during the year	7,000	6,000
Units in ending inventory	3,000	4,000

The unit product cost under absorption costing in Year 2 is closest to:

A) $19.00
B) $44.00
C) $20.00
D) $39.00

The unit product cost under variable costing in Year 1 is closest to:

A) $24.00
B) $33.00
C) $19.00
D) $38.00

Two next questions

16)Janos Corporation, which has only one product, has provided the following data concerning its most recent month of operations:

Selling price	$	111
Units in beginning inventory		300
Units produced		2,000
Units sold		2,200
Units in ending inventory		100
Variable costs per unit:		
Direct materials	$	29
Direct labor	$	30
Variable manufacturing overhead	$	4
Variable selling and administrative expense	$	9
Fixed costs:		
Fixed manufacturing overhead	$	34,000
Fixed selling and administrative expense	$	39,600

The company produces the same number of units every month, although the sales in units vary from month to month. The company's variable costs per unit and total fixed costs have been constant from month to month.

What is the unit product cost for the month under absorption costing?

A) $80 per unit
B) $72 per unit
C) $63 per unit
D) $89 per unit

What is the unit product cost for the month under variable costing?

A) $63 per unit
B) $80 per unit
C) $72 per unit
D) $89 per unit

17) Columbia Corporation produces a single product. The company's variable costing income statement for November appears below:

Columbia Corporation
Income Statement
For the Month ended November 30

Sales ($30 per unit)	$ 1,200,000
Variable expenses:	
Variable cost of goods sold	720,000
Variable selling expense	160,000
Total variable expenses	880,000
Contribution margin	320,000
Fixed expenses:	
Manufacturing	140,000
Selling and administrative	35,000
Total fixed expenses	175,000
Net operating income	$ 145,000

During November, 35,000 units were manufactured and 8,000 units were in beginning inventory. Variable production costs have remained constant on a per unit basis over the past several months.

The value of the company's inventory on November 30 under absorption costing would be:
A) $54,000
B) $66,000
C) $78,000
D) $81,000

4

Reconciliation of variable costing with absorption costing income

- MOH deferred in (released from) inventory = F MOH in ending inventories – F MOH in beginning inventory
- In lean production units produced = units sold.

Fixed MOH deferred in or released from inventories under absorption costing			
	January	February	March
F MOH in End Inventory			
F MOH in Beg inventory			
F MOH deferred in (released from) inventories			

- Absorption costing NOI/L = Variable costing NOI/L + F.MOH D/R under absorption costing.

Reconciliation of variable costing and absorption costing net operating income			
	January	February	March
Variable costing net operating income (loss)			
Fixed MOH deferred in or released from inventories under absorption costing			
Absorption costing net operating income (loss)			

Relation between production and sales for the period	Effect in inventories	Relation between absorption and variable costing net operating income
Units produced = units sold	No change in inventories	A. NOI = V. NOI
Units produced > units sold	Inventories increase	A. NOI > V. NOI
Units produced < units sold	Inventories decrease	A. NOI < V. NOI

1	When reconciling variable costing and absorption costing net operating income, fixed manufacturing overhead costs deferred in inventory under absorption costing should be deducted from variable costing net operating income to arrive at the absorption costing net operating income.	False
2	Lean production should result in reduced inventories. If lean production is successfully implemented, the difference in net operating income computed under the absorption and variable costing methods should be reduced.	True
3	Assuming the LIFO inventory flow assumption, when production exceeds sales for the period, absorption costing net operating income will exceed variable costing net operating income.	TRUE
4	Under the LIFO inventory flow assumption, if the number of units in inventories increase between the beginning and end of the period, absorption costing net operating income will generally be greater than variable costing net operating income.	TRUE

5

Advantages of variable costing and the contribution approach

- Enabling CVP analysis
- Explaining changes in net operating income

  Under absorption costing, fluctuations in net operating income can be caused by changes in inventories as well as changes in unit sales.

- Supporting decision making

6

E6-3

Jorgansen Lighting, Inc., manufactures heavy duty street lighting systems for municipalities. The company uses variable costing for internal management reports and absorption costing for external reports to shareholders, creditors and the government. The company has provided the following data:

	Year 1	Year 2	Year 3
Inventories:			
Beginning (units)	200	170	180
Ending (units)	170	180	220
Variable costing net operating income	$1,080,400	$1,032,400	$996,400

The company's fixed manufacturing overhead per unit was constant at $560 for all the three years.

1-calculate each year's absorption costing net operating income. Present your answer in the form of a reconciliation report.

2-assume in year 4 that the company's variable costing net operating income was $984,400 and its absorption costing net operating income was $1,012,400.

a- Did inventories increase or decrease during the year 4?

b- How much fixed manufacturing overhead was deferred or released from inventories during year4?

E6-14

Chuck Wagon Grills, Inc., makes a single product – a handmade specialty barbecue grill that it sells for $210. Data for last year's operations follows:

Units in beginning inventory	0
Units produced	20,000
Units sold	19,000
Units in ending inventory	1,000
Variable cost per unit:	
Direct material	50
Direct labor	80
Variable MOH	20
Variable selling and administrative	10
Total variable cost per unit	160
Fixed costs:	
Fixed MOH	700,000
Fixed selling and administrative	285,000
Total fixed expense	985,000

1- **Assume that the company uses variable costing. Compute the unit product cost for one barbecue grill.**

2- Assume that the company uses variable costing. Prepare a contribution format income statement for last year.

3- What is the company's break-even point in terms of the number of barbecue grills sold?

1) Net operating income computed under variable costing would exceed net operating income computed using absorption costing if:
A) units sold exceed units produced.
B) units sold are less than units produced.
C) units sold equal units produced.
D) the average fixed cost per unit is zero.

2) Generally speaking, net operating income under variable and absorption costing will:
A) always be equal.
B) never be equal.
C) be equal only when production and sales are equal.
D) be equal only when production exceeds sales.

3) When sales exceed production and the company uses the LIFO inventory flow assumption, the net operating income reported under variable costing generally will be:
A) less than net operating income reported under absorption costing.
B) greater than net operating income reported under absorption costing.
C) equal to net operating income reported under absorption costing.
D) higher or lower because no generalization can be made.

4) Silver Corporation produces a single product. Last year, the company's variable production costs totaled $7,500 and its fixed manufacturing overhead costs totaled $4,500. The company produced 3,000 units during the year and sold 2,400 units. There were no units in the beginning inventory. Which of the following statements is true?
A) Under variable costing, the units in the ending inventory will be costed at $4.00 each.
B) The net operating income under absorption costing for the year will be $900 lower than the net operating income under variable costing.
C) The ending inventory under variable costing will be $900 lower than the ending inventory under absorption costing.
D) Under absorption costing, the units in ending inventory will be costed at $2.50 each.

5) Bellue Inc. manufactures a single product. Variable costing net operating income was $96,300 last year and its inventory decreased by 2,600 units. Fixed manufacturing overhead cost was $1 per unit for both units in beginning and in ending inventory. What was the absorption costing net operating income last year?
A) $2,600
B) $93,700
C) $96,300
D) $98,900

6) Moskowitz Corporation has provided the following data for its two most recent years of operation:

Selling price per unit	$	91
Manufacturing costs:		
Variable manufacturing cost per unit produced:		
Direct materials	$	13
Direct labor	$	7
Variable manufacturing overhead	$	3
Fixed manufacturing overhead per year	$	480,000
Selling and administrative expenses:		
Variable selling and administrative expense per unit sold	$	6
Fixed selling and administrative expense per year	$	84,000

	Year 1	Year 2
Units in beginning inventory	0	3,000
Units produced during the year	12,000	10,000
Units sold during the year	9,000	10,000
Units in ending inventory	3,000	3,000

Which of the following statements is true for Year 2?
A) The amount of fixed manufacturing overhead released from inventories is $686,000
B) The amount of fixed manufacturing overhead released from inventories is $24,000
C) The amount of fixed manufacturing overhead deferred in inventories is $686,000
D) The amount of fixed manufacturing overhead deferred in inventories is $24,000

7) A company that produces a single product had a net operating income of $65,000 using variable costing and a net operating income of $95,000 using absorption costing. Total fixed manufacturing overhead was $60,000 and production was 10,000 units both this year and last year. Last year was the first year of operations. Between the beginning and the end of the year, the inventory level:
A) decreased by 5,000 units
B) increased by 5,000 units
C) decreased by 30,000 units
D) increased by 30,000 units

8) Croft Corporation produces a single product. Last year, the company had a net operating income of $160,000 using absorption costing and $149,000 using variable costing. The fixed manufacturing overhead cost was $10 per unit. There were no beginning inventories. If 43,000 units were produced last year, then sales last year were:
A) 32,000 units
B) 40,000 units
C) 41,900 units
D) 54,000 units

9) Kaaua Corporation has provided the following data for its two most recent years of operation:

Selling price per unit	$ 83
Manufacturing costs:	
Variable manufacturing cost per unit produced:	
Direct materials	$ 13
Direct labor	$ 7
Variable manufacturing overhead	$ 4
Fixed manufacturing overhead per year	$ 396,000
Selling and administrative expenses:	
Variable selling and administrative expense per unit sold	$ 4
Fixed selling and administrative expense per year	$ 72,000

	Year 1	Year 2
Units in beginning inventory	0	2,000
Units produced during the year	12,000	11,000
Units sold during the year	10,000	9,000
Units in ending inventory	2,000	4,000

Which of the following statements is true for Year 2?
A) The amount of fixed manufacturing overhead deferred in inventories is $534,000
B) The amount of fixed manufacturing overhead released from inventories is $78,000
C) The amount of fixed manufacturing overhead released from inventories is $534,000
D) The amount of fixed manufacturing overhead deferred in inventories is $78,000

10) Pungent Corporation manufactures and sells a spice rack. Shown below are the actual operating results for the first two years of operations:

	Year 1	Year 2
Units (spice racks) produced	40,000	40,000
Units (spice racks) sold	37,000	41,000
Absorption costing net operating income	$ 44,000	$ 52,000
Variable costing net operating income	$ 38,000	???

Pungent's selling price and unit variable cost and total fixed cost were the same for both years. What is Pungent's variable costing net operating income for Year 2?
A) $48,000
B) $50,000
C) $54,000
D) $56,000

11) Neef Corporation has provided the following data for its two most recent years of operation:

Selling price per unit	$	84
Manufacturing costs:		
Variable manufacturing cost per unit produced:		
Direct materials	$	12
Direct labor	$	5
Variable manufacturing overhead	$	4
Fixed manufacturing overhead per year	$	432,000
Selling and administrative expenses:		
Variable selling and administrative expense per unit sold	$	5
Fixed selling and administrative expense per year	$	61,000

	Year 1	Year 2
Units in beginning inventory	0	3,000
Units produced	12,000	9,000
Units sold	9,000	10,000
Units in ending inventory	3,000	2,0000

Which of the following statements is true for Year 2?
A) The amount of fixed manufacturing overhead released from inventories is $12,000
B) The amount of fixed manufacturing overhead released from inventories is $654,000
C) The amount of fixed manufacturing overhead deferred in inventories is $12,000
D) The amount of fixed manufacturing overhead deferred in inventories is $654,000

12) Last year, Tinklenberg Corporation's variable costing net operating income was $52,400 and its inventory decreased by 1,400 units. Fixed manufacturing overhead cost was $8 per unit for both units in beginning and in ending inventory. What was the absorption costing net operating income last year?
A) $41,200
B) $11,200
C) $63,600
D) $52,400

13) Sipho Corporation manufactures a single product. Last year, the company's variable costing net operating income was $90,900. Fixed manufacturing overhead costs released from inventory under absorption costing amounted to $21,900. What was the absorption costing net operating income last year?
A) $69,000
B) $90,900
C) $21,900
D) $112,800

14) Truo Corporation produces a single product. Last year, the company had net operating income of $100,000 using variable costing. Beginning and ending inventories were 13,000 units and 18,000 units, respectively. If the fixed manufacturing overhead cost was $4 per unit both last year and this year, what would have been the net operating income using absorption costing?
A) $80,000
B) $100,000
C) $120,000
D) $172,000

TWO QUESTIONS Cahalane Corporation has provided the following data for its two most recent years of operation:

Selling price per unit	$	91
Manufacturing costs:		
Variable manufacturing cost per unit produced:		
Direct materials	$	12
Direct labor	$	5
Variable manufacturing overhead	$	5
Fixed manufacturing overhead per year	$	432,000
Selling and administrative expenses:		
Variable selling and administrative expense per unit sold	$	4
Fixed selling and administrative expense per year	$	78,000

	Year 1	Year 2
Units in beginning inventory	0	1,000
Units produced during the year	9,000	12,000
Units sold during the year	8,000	10,000
Units in ending inventory	1,000	3,000

15)Which of the following statements is true for Year 1?
A) The amount of fixed manufacturing overhead deferred in inventories is $48,000
B) The amount of fixed manufacturing overhead released from inventories is $560,000
C) The amount of fixed manufacturing overhead deferred in inventories is $560,000
D) The amount of fixed manufacturing overhead released from inventories is $48,000

16)Which of the following statements is true for Year 2
A) The amount of fixed manufacturing overhead deferred in inventories is $60,000
B) The amount of fixed manufacturing overhead released from inventories is $60,000
C) The amount of fixed manufacturing overhead deferred in inventories is $592,000
D) The amount of fixed manufacturing overhead released from inventories is $592,000

17) Last year, Kirsten Corporation's variable costing net operating income was $63,400. Fixed manufacturing overhead costs released from inventory under absorption costing amounted to $10,700. What was the absorption costing net operating income last year?
A) $10,700
B) $74,100
C) $63,400
D) $52,700

Two questions Krepps Corporation produces a single product. Last year, Krepps manufactured 20,000 units and sold 15,000 units. Production costs for the year were as follows:

Direct materials	$ 170,000
Direct labor	$ 110,000
Variable manufacturing overhead	$ 200,000
Fixed manufacturing overhead	$ 240,000

Sales totaled $825,000 for the year, variable selling and administrative expenses totaled $108,000, and fixed selling and administrative expenses totaled $165,000. There was no beginning inventory. Assume that direct labor is a variable cost.

18)Under absorption costing, the ending inventory for the year would be valued at:
A) $0
B) $216,000
C) $248,250
D) $180,000

19)Under variable costing, the company's net operating income for the year would be:
A) $101,250 lower than under absorption costing.
B) $60,000 lower than under absorption costing.
C) $101,250 higher than under absorption costing.
D) $60,000 higher than under absorption costing.

20) The Southern Corporation manufactures a single product and has the following cost structure:

Variable costs per unit:	
Production	$ 38
Selling and administrative	$ 14
Fixed costs per year:	
Production	$ 140,000
Selling and administrative	$ 84,000

Last year, 7,000 units were produced and 6,800 units were sold. There was no beginning inventory.

The carrying value on the balance sheet of the ending inventory of finished goods under variable costing would be:
A) the same as absorption costing.
B) $6,800 greater than under absorption costing.
C) $6,800 less than under absorption costing.
D) $4,000 less than under absorption costing.

21) Kern Corporation produces a single product. Selected information concerning the operations of the company follow:

Units in beginning inventory	0
Units produced	10,000
Units sold	9,000

Direct materials	$ 40,000
Direct labor	$ 20,000
Variable manufacturing overhead	$ 12,000
Fixed manufacturing overhead	$ 25,000
Variable selling and administrative expenses	$ 4,500
Fixed selling and administrative expenses	$ 30,000

Assume that direct labor is a variable cost.

Which costing method, absorption or variable costing, would show a higher operating income for the year and by what amount?
A) Absorption costing net operating income would be higher than variable costing net operating income by $2,500.
B) Variable costing net operating income would be higher than absorption costing net operating income by $2,500.
C) Absorption costing net operating income would be higher than variable costing net operating income by $5,500.
D) Variable costing net operating income would be higher than absorption costing net operating income by $5,500.

Two questions Danahy Corporation manufactures a single product. The following data pertain to the company's operations over the last two years:

Variable costing net operating income, last year	$ 52,000
Variable costing net operating income, this year	$ 68,000
Fixed manufacturing overhead costs released from inventory under absorption costing, last year	$ 4,000
Fixed manufacturing overhead costs deferred in inventory under absorption costing, this year	$ 6,000

22)What was the absorption costing net operating income last year?
A) $50,000
B) $48,000
C) $52,000
D) $56,000

23)What was the absorption costing net operating income this year?
A) $62,000
B) $74,000
C) $70,000
D) $66,000

Two questions Helmers Corporation manufactures a single product. Variable costing net operating income last year was $86,000 and this year was $103,000. Last year, $32,000 in fixed manufacturing overhead costs were released from inventory under absorption costing. This year, $12,000 in fixed manufacturing overhead costs were deferred in inventory under absorption costing.

24)What was the absorption costing net operating income last year?
A) $106,000
B) $86,000
C) $54,000
D) $118,000

25)What was the absorption costing net operating income this year?
A) $81,000
B) $83,000
C) $115,000
D) $123,000

Two questions Norenberg Corporation manufactures a single product. The following data pertain to the company's operations over the last two years:

Variable costing net operating income, last year	$ 88,600	
Variable costing net operating income, this year	$ 96,100	
Beginning inventory, last year	0	units
Ending inventory, last year	3,600	units
Ending inventory, this year	1,300	units
Fixed manufacturing overhead cost per unit this year and last year	$ 7	per unit

26)What was the absorption costing net operating income last year?
A) $113,800
B) $88,600
C) $94,400
D) $76,700

27)What was the absorption costing net operating income this year?
A) $80,000
B) $100,500
C) $108,000
D) $112,200

7

P6-20

High country, Inc., produces and sells many recreational products. The company has just opened a new plant to produce a folding camp cot that will be marketed throughout the united states. The following cost and revenue data relate to May, the first month of the plant's operation:

Beginning inventory	0
Units produced	10,000
Units sold	8,000
Selling price per unit	$ 75
Selling and administrative expense:	
Variable per unit	6
Fixed per month	200,000
Manufacturing costs:	
Direct material cost per unit	20
Direct labor cost per unit	8
Variable MOH cost per unit	2
Fixed MOH cost per month	$100,000

Management is anxious to assess the profitability of the new camp cot during the month of May

1-Assume that the company uses absorption costing.

- **a- Determine the unit product cost**
- **b- Prepare an income statement for May**

2-Assume that the company uses variable costing.

- **a- Determine the unit product cost**
- **b- Prepare a contribution format income statement for May**

3-explain the reason for any difference in the ending inventory balances under the two costing methods and the impact of this difference on the reported net operating income.

THE END

Good luck