

# **BUSINESS CALCULATIONS**



# BASIC PRINCIPLES

## **OF PROFIT**

A HEAD SOMMELIER OR BEVERAGE DIRECTOR MUST HAVE A FUNDAMENTAL BUSINESS INSIGHT THAT THEY CAN UTILISE AT WORK. TERMS MAY DIFFER ACROSS THE WORLD, BUT THE BASIC PRINCIPLES APPLY EVERYWHERE; THEY ARE -

You buy something, you then sell it at a higher price; the difference is your profit.

Selling Price minus Cost Price = Gross Profit

eg. You sell a wine at £25 that costs you £10; £15 is your Gross Profit

Cost Price plus Gross Profit = Selling Price eg. You buy a wine at £10 and add £15 profit; £25 is your Selling Price

Selling Price minus Gross Profit = Cost Price

eg. You sell a wine at £25 and make £15 profit; £10 is your Cost Price

#### Note - Gross vs. Net Profit

Net Profit is your Gross Profit minus all the overheads such as Staff Costs, Heating, Lighting, Laundry Costs, Taxes, Rent etc. Net Profit needs to exceed Gross Profit or you will be losing money.

#### Other Terms used Globally

Gross Profit = Gross Income

Cost Price = Cost of Goods Sold (COGS)

Selling Price = List Price, Marked Price, Retail Price

Opening Stock = Beginning Inventory

Closing Stock = Ending Inventory

Difference = Purchases

# BASIC PRINCIPLES

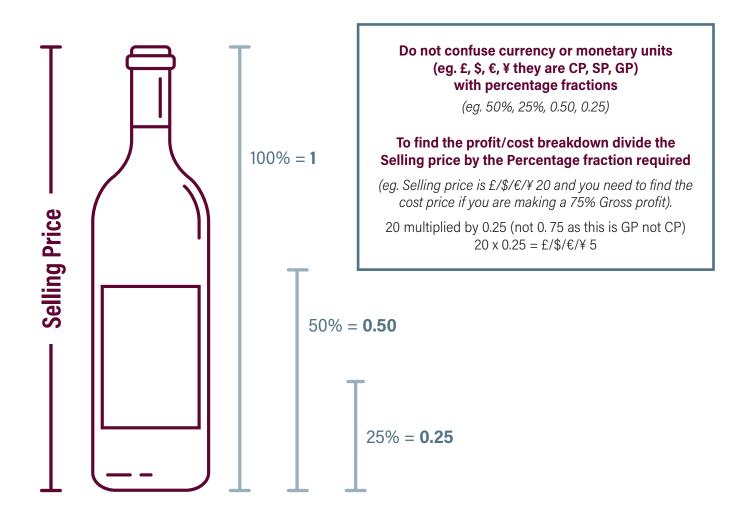
# **OF PROFIT**

You sell a wine at £25 that costs you £10; £15 is your Gross Profit

Here you will make a £15 cash margin or a 60% Gross Profit

$$60\% \text{ (£15)} + 40\% \text{ (£10)} = 100\% \text{ (£25)}$$

$$GP + CP = SP$$



# SOMMELIER

# **CALCULATIONS**

### A Sommelier should have the ability to calculate glass quantities per bottle in Centilitre, Millilitre and Ounces (1cl = 10ml) (750ml = 25.4 fluid ounces) (in USA)

(UK Imperial fluid ounces 26.4 oz = 750ml)

750ml standard bottle contains 6 x 125ml glasses

750ml standard bottle contains 4 x 175ml glasses (plus 50ml ullage/waste)

750ml standard bottle contains 5 x 5oz glasses (plus 0.4oz ullage/waste) (in USA)

#### A Sommelier should have the ability to calculate multiples of cl (centilitre), ml (millilitre) and ounces (oz.)

750ml standard bottle contains 15 x 50ml glasses

750ml standard bottle contains 7.5 x 100ml glasses

750ml standard bottle contains 12 x 2oz glasses (plus 0.7oz ullage/waste) (in USA)

#### A Sommelier should have the ability to calculate Selling Price based on Gross Profit %

Selling Price = Cost Price divided by (1-GP%) eg. 40% = 0.4

Eg. Cost Price (price to buy) is £25, calculate what is Selling Price with 65% Gross Profit

25 divided by 0.35 = 71.42 selling price would be £71.50

### **Question 1**



You buy a 6-bottle (75cl) case of Port for £350 and are selling it in 100ml glasses. How much would you sell each glass for to make 60% gross profit (taxes not included)?

£350 divided by 6 = £58.33 per bottle cost price

7.5 x 100ml glasses per bottle

58.33 divided by 7.5 = £7.77 cost price per glass

7.77 divided by 0.4 = 19.45

Selling price = £19.50 (after rounding to nearest 50p)

# SOMMELIER

### **CALCULATIONS**

#### A Sommelier should have the ability to calculate **Gross Profit % based on Selling Price**

Gross Profit % = (Selling Price - Cost Price) divided by Selling Price

Eg. Cost Price (price to buy) is £25; calculate Selling Price with 65% Gross Profit

25 divided by 0.35 = 71.42 selling price would be £71.50



#### **QUESTION 2**

You buy a 12-bottle (75cl) case of Grand Cru Burgundy for £900. Selling each bottle at £190 what would be your Gross Profit (taxes not included)?

900 divided by 12 = £75 Cost Price Gross Profit % = 190 - 75 divided by 190115 divided by 190 = 0.60 = 60% Gross Profit

#### A Sommelier should have the ability to calculate Cost Price based on Gross Profit %

Cost Price = (Selling Price divided by 100) x Gross Profit



### **QUESTION 3**

You sell a bottle of Bourbon for £75 making 30% Gross Profit What is the Cost Price?

 $(75 \text{ divided by } 100) \times 70 \text{ OR } 75 \times 0.7 = 52.50$ 

Cost Price = £52.50

# QUESTIONS



### **QUESTION 4**



A guest has £100 budget for a 4-course dinner to which 25 people are invited. Your Chef has a budget of £40 for food cost

1. At 33% cost price, what is your budget for wine for the 4 courses?

2. How many bottles will you need if each guest drinks a 125ml glass with each course?

£60 for wines. 4 courses = £15 per course

33% cost = £5 per person or £20 overall

750ml divided by 125ml = 6 glasses per bottle

25 glasses per course. 25 divided by 6 = 4.16 bottles

Must be 5 bottles per course, 20 bottles in total



#### **QUESTION 5**

A new wine by the glass costs £16.00 per bottle. How much would you charge per glass for a 125ml pour at 33% GP?

6 glasses per bottle

£16 divided by 6 glasses = £2.66

£2.66 divided by 0.66 = £4.00



### **QUESTION 6**

You are organising a 2-hour Rare Malt Whisky tasting for 35 businessmen. You have a budget of £125 per bottle.

At 20% cost what is your buying cost per bottle?

2 hours (not relevant), 35 people (not relevant)

20% of £125 = (125 divided by 100) x 20 = £25 per bottle

### **BUSINESS SCENARIO 1 (Answers on following page)**

- You are the Head Sommelier in a prestigious Restaurant. You have worked with your General Manager on your department's Budget for the next financial year (starting today).
- Please note that you have scheduled to add 3 team members to the beverage team next year.
- Your Financial Director has received the plan below, but he is missing some essential information (White Cells)
- Please fill in the missing parts of that Budget.
- · You will have 20 minutes.

Nb - All Taxe	s Are Included In The Figures			This Year			Next Year		
Categories	Product		Sales	Gross Profit	GP%	Sales	Gross Profit	GP%	
	Sparkling Wines		£525,000	£330,750		£565,000	£378,550	67%	
	White Wines		£720,000		75%	£785,000	£588,750		
	Red Wines		£850,000	£612,000	72%	£860,000	£619,200	72%	
Wines	Sweet Wines		£78,000	£46,800	60%	£83,000	£51,460	62%	
	Fortified Wines		£150,000	£82,500	55%	£165,000	£107,250	65%	
		TOTAL		£1,612,050	69%	£2,458,000	£1,745,210		
	Gin		£280,000	£229,600		£310,000	£257,300	83%	
	Vodka		£230,000	£184,000	80%	£25,000	£20,500	82%	
	Whiskies		£110,000	£73,700	67%	£125,000		67%	
	Rum/Tequila			£54,400	64%	£85,000	£54,400	64%	
Liquors And Spirits	Cognac/Armagnac/Calvados		£28,000	£12,600	45%	i	£12,600	45%	
	Liquors		£120,000	£98,400	82%	£,135,000	£113,400	84%	
	Vermouth		£8,000	£5,200	65%	£12,000	£9,000	75%	
	Others		£3,500	£1,750	50%	£8,000	£4,800	60%	
		TOTAL	£864,500	£659,650		£728,000	£555,750	76%	
	Bottle		£280,000	£190,400	68%	£340,000	£244,800	72%	
Beers And Ciders	Draught		£260,000		45%	£295,000	£177,000	60%	
		TOTAL	£540,000	£307,400	57%	£635,000	£421,800	66%	
	Water	10111	£180,000	£156,600	87%	£230,000	£202,400	88%	
	Mixers		£120,000	£98,400	82%	£155,000	£127,100	82%	
Water And Soft Drinks	Juices		£5,000	£4,150	83%	£7,000	£5,810	83%	
	341000	TOTAL	£305,000	2 1,100	85%	£392,000	£335,310	86%	
Tobacco	Cigars	TOTAL	£60,000	£27,000	45%	2002,000	£40,800	48%	
Total Beverages		TOTAL	200,000	£2,865,250	70%	£4,298,000	2.0,000	72%	
	Glasses	101112		,		2 1,200,000	£118,000	7270	
Glasswares	Decanter			£16,500			2110,000		
Purchased Inc. Taxes	Dodantoi	TOTAL		£151,500			£130,000		
		10111		Salary per year			Salary per year		
	Head Sommelier			£72,000			£72,000		
	Assistant Head Sommelier 1			£45,000			£45,000		
	Assistant Head Sommelier 2			£32,000			£45,000		
	Bartender 1			£32,000			£32,000		
	Bartender 2			202,000			£32,000		
Commolier	Sommelier 1			£32,000			£32,000		
Sommelier Team Payroll	Sommelier 2			£32,000			£32,000		
	Sommelier 3			£32,000			£32,000		
	Sommelier 4			202,000			202,000		
	Commonor :						£25,000		
	Commis Sommelier 1			£25,000					
	Commis Sommelier 1 Commis Sommelier 2			£25,000					
	Commis Sommelier 2			£25,000 £25,000			£25,000		
		TOTAL					£25,000 £25,000		
	Commis Sommelier 2	TOTAL					£25,000		
Financial Rudget	Commis Sommelier 2 Commis Sommelier 3	TOTAL	£4.092.500	£25,000	70%	£4.298.000	£25,000 £25,000 £429,000	72%	
Financial Budget	Commis Sommelier 2 Commis Sommelier 3  Total Beverages	TOTAL	£4,092,500		70%	£4,298,000	£25,000 £25,000 £429,000	72%	
Financial Budget	Commis Sommelier 2 Commis Sommelier 3	TOTAL	£4,092,500	£25,000	70%	£4,298,000	£25,000 £25,000 £429,000	72%	

### **ANSWERS TO BUSINESS SCENARIO 1**

- You are the Head Sommelier in a prestigious Restaurant. You have worked with your General Manager on your department's Budget for the next financial year (starting today).
- Please note that you have scheduled to add 3 team members to the beverage team next year.
- Your Financial Director has received the plan below, but he is missing some essential information (White Cells)
- · Please fill in the missing parts of that Budget.
- · You will have 20 minutes.

Nb - All Taxe	s Are Included In The Figures	This Year				Next Year				
Categories	Product		Sales	<b>Gross Profit</b>	GP%	Sales	Gross Profit	GP%		
	Sparkling Wines		£525,000	£330,750	63%	£565,000	£378,550	67%		
	White Wines		£720,000	£540,000	75%	£785,000	£588,750	75%		
***	Red Wines		£850,000	£612,000	72%	£860,000	£619,200	72%		
Wines	Sweet Wines		£78,000	£46,800	60%	£83,000	£51,460	62%		
	Fortified Wines		£150,000	£82,500	55%	£165,000	£107,250	65%		
		TOTAL	£2,323,000	£1,612,050	69%	£2,458,000	£1,745,210	71%		
	Gin		£280,000	£229,600	82%	£310,000	£257,300	83%		
	Vodka		£230,000	£184,000	80%	£25,000	£20,500	82%		
	Whiskies		£110,000	£73,700	67%	£125,000	£83,750	67%		
	Rum/Tequila		£85,000	£54,400	64%	£85,000	£54,400	64%		
Liquors And Spirits	Cognac/Armagnac/Calvados		£28,000	£12,600	45%	£28,000	£12,600	45%		
	Liquors		£120,000	£98,400	82%	£,135,000	£113,400	84%		
	Vermouth		£8,000	£5,200	65%	£12,000	£9,000	75%		
	Others		£3,500	£1,750	50%	£8,000	£4,800	60%		
		TOTAL	£864,500	£659,650	76 %	£728,000	£555,750	76%		
	Bottle		£280,000	£190,400	68%	£340,000	£244,800	72%		
Beers And Ciders	Draught		£260,000	£117,000	45%	£295,000	£177,000	60%		
	0	TOTAL	£540,000	£307,400	57%	£635,000	£421,800	66%		
	Water		£180,000	£156,600	87%	£230,000	£202,400	88%		
	Mixers		£120,000	£98,400	82%	£155,000	£127,100	82%		
Vater And Soft Drinks	Juices		£5,000	£4,150	83%	£7,000	£5,810	83%		
	341000	TOTAL	£305,000	£259,150	85%	£392,000	£335,310	86%		
Tobacco	Cigars	TOTAL	£60,000	£27,000	45%	£85,000	£40,800	48%		
Total Beverages	0.94.0	TOTAL	£4,092,500	£2,865,250	70%	£4,298,000	£3,098,870	72%		
	Glasses	101112	2 1,000,000	£135,000	1070	2 1,200,000	£118,000			
Glasswares	Decanter			£16,500			£12,000			
Purchased Inc. Taxes		TOTAL		£151.500			£130,000			
				Salary per year			Salary per year			
	Head Sommelier			£72,000			£72,000			
	Assistant Head Sommelier 1			£45,000			£45,000			
	Assistant Head Sommelier 2			£32,000			£45,000			
	Bartender 1			£32,000			£32,000			
	Bartender 2						£32,000			
Sommelier	Sommelier 1			£32,000			£32,000			
Team Payroll	Sommelier 2			£32,000			£32,000			
	Sommelier 3			£32,000			£32,000			
	Sommelier 4			202,000			£32,000			
	Commis Sommelier 1			£25,000			£25,000			
				£25,000			£25,000			
	Commis Sommelier 2			220,000			220,000			
	Commis Sommelier 2  Commis Sommelier 3						£25,000			
	Commis Sommelier 2 Commis Sommelier 3	TOTAL		£340.000			£25,000			
		TOTAL		£340,000			£25,000 £429,000			
Financial Rudget	Commis Sommelier 3	TOTAL	£4.092.500		70%	£4.298.000	£429,000	72%		
Financial Budget	Commis Sommelier 3  Total Beverages	TOTAL	£4,092,500	£2,865,250	70%	£4,298,000	£429,000 £3,098,870	72%		
Financial Budget	Commis Sommelier 3	TOTAL	£4,092,500		70%	£4,298,000	£429,000	72%		

### **BUSINESS SCENARIO 2 (Answers on following page)**

#### (12 minutes)

Please see the attached Excel document, highlighting part of your monthly stocktake and answer the questions below.

#### Task 1: There are various discrepancies in your stocktake report this month.

1. What is the Sales figure in £'s for these wines at end of the month?

	Albarino:	Brouilly:
	Please give three reasons why there may be discrepand stock sheet?	cies between closing, opening and difference on a
-		

#### Task 2: There are various discrepancies in your stocktake report this month.

Please fill in the missing cells from the document, calculating the GP% and selling prices where appropriate: (20 points)

Please round your answers to the nearest percentage and do NOT take taxes into account.

Ruinart:	Etna Rossa:
Puligny:	Cinsault:

#### Task 3: There are three errors in the wording of your wine list - please identify them and list below:

	Cost Price	Selling Price	%GP	Opening Stock	Closing Stock	Difference	Sales(£)
Champagne							
Ruinart Blanc de Blancs, NV	£45.00		71%	12	9	3	£465.00
Pol Roger Brut Tradition, NV	£40.00	£145.00	72%	24	12	12	£1,740.00
Agrapart, Terroirs, Blanc de Blancs, NV	£45.00	£165.00	73%	16	7	9	£1,485.00
Bérêche et Fils, Le Crans 1er Cru, Extra-Brut, NV	£82.00	£220.00	63%	9	4	5	£1,100.00
Krug, Grande Cuvee, 169eme edition, NV	£250.00	£550.00	55%	6	5	1	£550.00
Sparkling							
Gusbourne Rosé 2018	£35.00	£100.00	65%	13	6	7	£700.00
Eric Rodez, Rose, NV	£45.00	£120.00	63%	6	0	6	£720.00
White							
Albariño, Zarate, Rias Baixas, Spain, 2021	£15.00	£54.00	72%	32	7	25	
Sauvignon Blanc, Dog Point, Martinborough, NZ, 2022	£15.00	£55.00	73%	23	8	15	£825.00
Gruner Veltliner, Kamptaler Terrassen, Willi Brundlmayer, Kamptal, Austria, 2022	£20.00	£63.00	68%	11	3	8	£504.00
Assyrtiko, Argyros Estate, Santorini, Greece, 2021	£25.00	£80.00	69%	8	6	2	£160.00
Bourgogne Blanc, Tollot Beaut, 2020	£20.00	£68.00	71%	21	5	16	£1,088.00
Puligny Montrachet, Bachelet Monnot, 2019	£40.00	£130.00		12	7	5	£650.00
Château Musar, Blanc, Bekaa Valley, Lebanon, 2017	£25.00	£82.00	70%	4	3	1	£82.00
Semillon, Vat 1, Brokenwood, Hunter Valley, 2017	£28.00	£96.00	71%	7	4	3	£288.00
Red							
Côte-Rôtie, Les Schistes, D. Clusel Roch, 2018	£35.00	£110.00	68%	14	8	6	£660.00
Malbec, Reserve, Demaine Bousquet, 2020	£12.00	£45.00		36	13	23	£1,035.00
Etna Rosso, Benanti, Sicily, Italy, 2020	£15.00	£52.00	71%	24	7	17	£884.00
Cote de Brouilly, Les Sept Vignes, Chateau Thivin, Beaujolais, France, 2018	£25.00	£80.00	69%	21	9	12	
Château Ducru-Beaucaillou, 2éme Cru Classé, St Julien, Bordeaux, France, 2005	£220.00	£500.00	56%	3	2	1	£500.00
Langhe Rosso, Roagna, Piedmont, Italy, 2017	£30.00	£105.00	71%	12	8	4	£420.00
Spatburgunder, Blauschiefer, Meyer-Nakel, Ahr, Germany, 2018	£25.00	£85.00	71%	5	1	4	£340.00
Cinsault, Dassiekop, AA Badenhorst, Swartland, South Africa, 2019	£27.00		70%	16	10	6	£540.00
Fortified							
D'Oliveiras, Sercial, 1999	£60.00	£180.00	67%	16	10	6	£540.00

# **ANSWERS**

# **BUSINESS SCENARIO 2**

### Task 1:

- 1a. Albarino, Zarate, Rias Baixas: £1,350
- 1b. Cote de Brouilly, Chateau Thivin: £960
- 2a. Wastage from a by the glass listing overpouring, underpouring, out of condition not recorded
- 2b. Miscounted during stocktake
- 2c. Theft or Incorrect Delivery
- 2d. Not properly allocated from other source, eg Tasting Menu, To Kitchen, Marketing/Gifts

### Task 2:

Ruinart Blanc de Blancs: Selling price = £155 at 71%

Cinsault, AA Badenhorst: Selling price = £90 at 70%

Puligny Montrachet, Bachelet Monnot: GP = 69% at £130 selling price

Malbec, Reserve, Domaine Bousquet: GP = 73% at £45 selling price

### Task 3:

- 1. Sauvignon Blanc, Dog Point: from Marlborough, not Martinborough
- 2. Semillon, Vat 1: from Tyrells, not Brokenwood
- 3. Cinsault, AA Badenhorst: Dassiekop is a Chenin Blanc vineyard





### **COURT OF MASTER SOMMELIERS EUROPE**

www.courtofmastersommeliers.org