Change and Change %:

Following information relates to Co.A:

Years	Net Sales	COGS
2015	100,000	60,000
2016	120,000	110,000
2017	230,000	200,000
2018	290,000	275,000
2019	350,000	310,000
2020	400,000	365,000
2021	440,000	400,000
2022	600,000	500,000
2023	750,000	680,000

Required:

1 Change
2 Change %

	Co.A	Co.B
2022	100,000	3,000,000
2023	150,000	3,300,000
Change	50,000	300,000
Change %	150	110

Sol:

Years	Net Sales		COGS	
	Change	Change%	Change	Change%
2015	-	100	-	100
2016	20,000	120	50,000	183
2017	110,000	192	90,000	182
2018	60,000	126	75,000	138
2019	60,000	121	35,000	113
2020	50,000	114	55,000	118
2021	40,000	110	35,000	110
2022	160,000	136	100,000	125
2023	150,000	125	180,000	136

Change % = Current Year Value / Previous Year Value x 100

Comments:

For 2022:

Since change % of sales in 2022 is 136%, it means sales has increased by 36 as compare to 2021 and change % of COGS is 125% , it means COGS has increased by 25%.So change in sales is favorable in isolation , and change in COGS is unfavorable in isolation .But the change in both , if combined , is favorable because change% of sales is greater than change% of COGS.

	Analysis of Financial Statements:		Information Needs:
1	Change	1	Liquidity
2	% Change	2	Solvency
3	Ratio Analysis	3	Profitability
4	Trend Analysis		
5	Horizontal and Vertical Analysis		

1 Change:

Change = Current Year Amount - Last Year Amount

2 Change %:

Change % = (Current Year Amount - Last Year Amount) / Last Year Amount x 100

Or

Current Year Amount / Last Year Amount x 100

	Ratio Analysis:
1	Liquidity Ratios
2	Profitability Ratios
3	Solvency Ratios
4	Market Ratio

1 Liquidity Ratios:

a Working Capital:

Working Capital = Current Assets - Current Liabilities	Working capital means the current assets that will be remaining if all current liabilities are paid.This amount is used to perform business operations like paying salary, taxes, rent, insurance etc.

b Current Ratio:

Current Ratio = Current Assets / Current Liabilities	It shows how much greater or smaller the current assets are as compare to current liabilities.It shows how much % of current liability will be remaining in the form of current assets after paying it fully.

c Quick/Acid-Test Ratio:

Quick/Acid-Test Ratio: [Current Assets - (Inventory + Supplies + Prepaid Expense)] / Current Liability or Quick Ratio = [Cash + Bank+Marketable Securities+Receivables] / Current Liability or Quick Ratio = Quick Assets / Current Liability	It shows how much greater or smaller the quick assets are as compare to current liabilities.It shows how much % of current liability will be remaining in the form of quick asset after paying it fully.

d	**Inventory Turnover Ratio/Inventory Holding Period:**	
	In times:	
	Inventory Turnover Ratio(Times): Cost of Goods Sold/Average Inventory Average Inventory = (Beginning Inverntory + Ending Inventory)/ 2	It shows how many times the average inventory is sold and converted into receivable during the accounting period.
	In Days	
	Inventory Turnover(Days) = Days of Accounting Year/Inventory Turnover-in times Or Inventory Turnover(Days)=Days of Accounting Year/[Cost of Goods sold/average inv) or =Days of Accounting year x [Average Invetory/cost of goods sold]	It shows in how many days average inventory is sold and converted into receivable during the accounting period.
e	**Receivable Turnover Ratio/Receivable Collection Period:**	
	In times:	
	Receivable Turnover Ratio(Times): Net Credit Sales/Average Receivable Average Receivable = (Beginning Receivable + Ending Receivable)/ 2	It shows how many times the average receivable is converted into cash during the accounting period.
	In Days	
	Receivable Turnover(Days) = Days of Accounting Year/Receivable Turnover-in times Or Receivable Turnover(Days)=Days of Accounting Year/[Net Credit Sales/average Receivable) or =Days of Accounting year x [Average Receivable/Net Credit Sales]	It shows in how many days average receivable is converted into cash during the accounting period.
f	**Days of Operating Cycle:**	
	Days of Operating Cycle: Inventory Turnover Days + Receivable Turnover Days	It shows in how many days inventory is sold and receivable is converted into cash.

g	**Payment Turnover Ratio/Payable Payment Period:**	
	In times:	
	Payable Turnover Ratio(Times): Net Credit Purchases/Average Payable Average Payable = (Beginning Payable + Ending Payable)/ 2	It shows how many times the average payable is paid during the accounting period.
	In Days	
	Payable Turnover(Days) = Days of Accounting Year/Payable Turnover-in times Or Payable Turnover(Days)=Days of Accounting Year/[Net Credit Puchases/average Payable) or =Days of Accounting year x [Average Payable/Net Credit Purchases]	It shows in how many days average payable is paid during the accounting period.