Subject Area: Principles of Accounts
Level: CSEC
Curriculum Topic: Accounting Ratios
CSEC POA Section 5 Objectives 6, 7
Key teaching points:

- Use ratios to determine the performance (profitability) of business
- Calculate ratios to demonstrate the financial position of a business

Activity 1

There are eight basic Accounting Ratios that all students of POA should be familiar with. These include:

1. Inventory (Stock) turnover
2. Average Inventory
3. Gross Profit Percentage
4. Net Profit Percentage
5. Current Ratio
6. Acid test Ratio
7. Return on Investment
8. Return on Capital Employed

Look at the formulae and examples given for the Accounting Ratios below.

FOR EACH OF THE WEBSITES LISTED BELOW, PRESS THE CONTROL KEY AND SIMULTANEOUSLY CLICK ON THE WEBSITE FOR A DIRECT LINK

Formulae for Accounting Ratios

1. Inventory (Stock) turnover = $\frac{\text{Cost of Sales (Cost of Goods Sold)}}{\text{Average Inventory}}$

NB// A higher stock turnover means that the stocks of a business are selling quickly. A lower stock turnover means that they are not selling quickly. Firms look forward to a higher stock turnover.

For additional notes and examples feel free to check the following websites.
https://www.google.com/search?q=inventory+turnover&tbm=isch&ved=2ahUKEwjFmpSdktToAhW1sDEKHaiaDWIQ2-cCegQIABAA&oq=inventory+turnover&gs_lcp=CgNpbWcQAzIECAAQQzIECAAQQzIECAAQQzIECAAQQzICCAAyAggAMgIIADICCAAyAggAMgIIADoHCCMQ6gIQJzoECCMQJ1DSlgxY3bgMYKq6DGgBcAB4AIAB8wGIAccUkgEGMC4xNy4xmAEAoAEBqgELZ3dzLXdpei1pbWewAQo&sclient=img&ei=T06LXoU3teHGAai1tpAG&bih=506&biw=1094#imgrc=N4C8DhIdA76bLM

https://www.investopedia.com/ask/answers/070914/how-do-i-calculate-inventory-turnover-ratio.asp

2. Average inventory = $\frac{\text{Opening Stock + Closing Stock}}{2}$

For additional notes and examples feel free to check the following websites.

https://www.google.com/search?q=average+inventory&sxsrf=ALeKk032tYLzEbcYtq__p9o5LIIxUmo6wg:1586188160685&source=lnms&tbm=isch&sa=X&ved=2ahUKEwiA8fSuk9ToAhXCTN8KHeZwDrwQ_AUoAXoECA8QAw&biw=1094&bih=506#imgrc=Y5nHht__VKMuQM

https://www.myaccountingcourse.com/financial-ratios/average-inventory-period

3. Gross profit percentage = $\frac{\text{Gross Profit}}{\text{Sales (Revenue)}} \times 100$

NB// Gross profit % looks at the ability of a business to turn revenue into profit. The higher the % the better.

For additional notes and examples feel free to check the following websites.
https://www.google.com/search?q=gross+profit+margin&sxsrf=ALeKk03S3ERmvnurK7Fsrt9ZgfbbvVrWIg:1586188242396&source=lnms&tbm=isch&sa=X&ved=2ahUKEwiCmPDVk9ToAhVHMt8KHaY_BOIQ_AUoAXoECBIQAw&biw=1094&bih=506#imgrc=-qLSPKI0lZUePM

https://www.myaccountingcourse.com/financial-ratios/gross-profit-margin

4. Net profit percentage = $\frac{\text{Net Profit}}{\text{Sales (Revenue)}} \times 100$

NB// Net profit percentage shows how profitable a business really is. The higher the better. If low then a business should consider cutting costs.

For additional notes and examples feel free to check the following website.

https://www.google.com/search?q=net+profit+margin&sxsrf=ALeKk02_PAyb2H-u9hpkqwsUcXgZMP8emA:1586188382737&source=lnms&tbm=isch&sa=X&ved=2ahUKEwi0-OWYlNToAhXQct8KHZBXD1MQ_AUoAXoECBQQAw&biw=1094&bih=506#imgrc=dEWdH1u401RgtM

5. Current ratio (Working Capital Ratio) = $\frac{\text{Current Assets}}{\text{Current Liabilities}}$

NB// Most businesses aim for a current ratio of 2:1 so that current assets are twice the value of current liabilities. Firms do not want its current liabilities to exceed its current assets. Also, if current assets are more than twice the value of current liabilities, this may indicate that a business is holding onto too much cash.

For additional notes and examples feel free to check the following website.
https://www.bing.com/images/search?view=detailV2&ccid=gLfzu%2ffH&id=F02CDCB0293DCA7CEC8A45F7BC0E03C7BF847347&thid=OIP.gLfzu_fH-eJGzPDgEl0mrAHaFk&mediaurl=https%3a%2f%2fs3-eu-west-1.amazonaws.com%2ftutor2u-media%2fsubjects%2fbusiness%2fdiagrams%2fcurrent-ratio-formula-example.jpg%3fmtime%3d20150412072006&exph=497&expw=661&q=Current+Ratio&simid=608026927559936825&selectedIndex=0&ajaxhist=0

6. Acid-test ratio = $\frac{\text{Current Assets – Inventory}}{\text{Current Liabilities}}$

NB// An Acid-test ratio of 1:1 is generally desired. This ratio shows how quickly current assets can cover current liabilities.

For additional notes feel free to check the following websites.
https://www.bing.com/images/search?view=detailV2&ccid=kK2POMVl&id=84225A09B0DF6DCBB8541EB665B55F5D2151D73C&thid=OIP.kK2POMVlsklhu2CocpWtqwHaFk&mediaurl=http%3a%2f%2fs3-eu-west-1.amazonaws.com%2ftutor2u-media%2fsubjects%2fbusiness%2fdiagrams%2facid-test-ratio-formula-example.jpg&exph=497&expw=660&q=Acid+Test+Ratio+Formula&simid=608024891779580026&selectedIndex=0&ajaxhist=0

7. Return on investment = $\frac{\text{Net Profit}}{\text{Cost of Investment}} \times 100$

NB// A high ROI means the investment's gains compare favourably to its cost.

For additional notes feel free to check the following website.
https://www.google.com/search?q=return+on+investment&sxsrf=ALeKk01TVsoWK5LmzF9HwZWMUGgEWu31dw:1586187849296&source=lnms&tbm=isch&sa=X&ved=2ahUKEwjcmreaktToAhUDhOAKHTG3AJkQ_AUoAXoECA0QAw&biw=1094&bih=506#imgrc=Ig5tPrIbvvpC0M

8. Return on Capital Employed = $\frac{\text{Profit before Interest}}{\text{Capital employed}} \times 100$

https://www.tutor2u.net/business/reference/return-on-capital-employed

Activity 2

Look at the financial information provided below.

J. Callis'
Income and Expenditure account for period ending Dec 31, 2019

	$	$		$	$
Opening Stock		60 000	Sales Revenue		200 000
Add Purchases	150 000		Less Returns Inwards		1 500
Carriage Inwards	2 000		Net Sales		198 500
	152 000				
Less Returns Outwards	4 000				
		148 000			
Cost of Goods Available		208 000			
Less Closing Stock		30 000			
Cost of Sales/Goods Sold		178 000			
Gross Profit c/d		20 500			
		198 500			198 500
Expenses			Gross Profit b/d		20 500
Salaries		2 000			
Telephone		500			
Rent		3 000			
Depreciation		4 000			
Total Expenses		9 500			
Net Profit		11 000			
		20 500			20 500

J. Callis'
Balance Sheet as at Dec 31, 2019

	$	$		$
Fixed Assets		400 000	Capital	436 300
			Add Net Profit	11 000
Current Assets				
Stock	30 000			
Debtors	5 000		Current Liabilities	30 000
Cash at bank	40 000			
Cash in hand	2 300			
		77 300		
		477 300		477 300

(A) Calculate:
1. Inventory (Stock) turnover
2. Average Inventory
3. Gross Profit Percentage
4. Net Profit Percentage
5. Current Ratio
6. Acid test Ratio

(B) Analyse what each ratio calculated in (A) demonstrates about the financial position of the business.

Activity 3

Raymond invested $400 000 in the production of an Online Application called "Food2Go". The App was a huge success and one year later, he was able to sell it for $600 000. He also invested $300 000 in a company called "Mapp24" which he sold for $1 000 000. Determine which investment was more profitable.

Answer Key

Activity 2

(A) 1. 178 000 ÷ ½ (60 000 + 30 000) = 3.956 times
2. ½ (60 000 + 30 000) = $45 000
3. 20 500 ÷ 198 500 x 100 = 10.33%
4. 11 000 ÷ 198 500 x 100 = 5.54%
5. 77 300 : 30 000 = 2.58 : 1
6. (77 300 – 30 000) : 30 000 = 47 300 : 30 000 = 1.58 : 1

(B) 1. Good. Need to compare to other time periods to make sure it is increasing.
2. Good.
3. Good. Need to compare to other time periods to make sure it is increasing.
4. Good. Need to compare to other time periods to make sure it is increasing.
5. Current assets are twice the rate of current liabilities.
6. A ratio of 1:1 is desirable.

Activity 3

ROI Food2Go = (600 000 – 400 000) ÷400 000 x 100 = 50%
ROI Mapp24 = (1 000 000 – 300 000) ÷ 300 000 x 100 = 233%
Mapp24 was the better investment although they were both profitable.