**Ratio Notes/Questions Booklet**

Ainm:

**Please complete the following tables for the six ratios you have studied in Leaving Cert Business.**

1. **Profitability**

|  |  |  |  |
| --- | --- | --- | --- |
| **Ratio** | **Formula** | **Definition** | **Advice** |
| **Gross Profit Margin/Percentage** | **Gross Profit/Sales x 100/1** | Gross Profit Margin shows the percentage of profit on all items sold before expenses are taken into account- it is the profit percentage from all trading (buying and selling) | **Advice if problem: Sell more products to increase sales, charge a higher selling price to increase gross profit** |
| **Net Profit Margin/ Percentage** | **Net Profit/Sales x 100/1** | Net Profit Margin shows the overall percentage profit for the business after covering all costs, including expenses | **Advice if problem: Reduce expenses- e.g. shop around for cheaper supplier of gas/electricity/increase selling price to make more profit** |
| **Return on Investment/Return on Capital Employed** | **Net Profit/Capital Employed x 100/1**  **Capital Employed made up of Long Term Loans + Issued/Ordinary Shae Capital + Retained Earnings/Reserves** | The Return on Investment/Return on Capital Employed measures the level of profit the business can generate from money invested in it.  **(Always compare to the BANKS**  **risk free interest rates).** | **High**  **Expansion opportunities**  **Attract investors**  **Potential wage increases**  **Low**  **Difficult to get loans to expand**  **High interest payments**  **Hard to attract investors**  **Job security issues for employees** |

1. **Liquidity**

|  |  |  |  |
| --- | --- | --- | --- |
| **Ratio** | **Formula** | **Definition** | **Advice** |
| **Current Ratio** | **Current Assets: Current Liabilities** | It compares current assets with current liabilities. The firm would want its current assets to be greater than its current liabilities.  **Ideal Ratio**: **2:1** | If below ideal or worsening trend, they may need to solve this problem by sourcing cheaper suppliers or stop selling goods on credit. |
| **Acid Test Ratio** | **Current Assets- - Closing Stock: Current Liabilities** | Ratio that takes into account the fact that stock may not always be easily and quickly converted into cash.  **Ideal Ratio**: **1:1** | If below ideal or acid test is worsening from last year than the trend indicates that the firm’s liquidity position is worsening, corrective action must be taken such as selling excess stock at a discount. |

1. **Gearing**

|  |  |  |  |
| --- | --- | --- | --- |
| **Ratio** | **Formula** | **Definition** | **Risk of High Gearing** |
| **Gearing Ratio** | **Debt Capital: Equity Capital**  **(Long Term Loans: Issued/Ordinary Share Capital + Retained Earnings/Reserves)** | Examines the types of long-term finance or capital being used- what proportion of capital is made up of Long Term Loans and what proportion is made up of Retained earnings/Reserves and Ordinary/Issued Share Capital. | **-High interest payments**  **-Will reduce its ability to get more loans- seen as a risk by the bank**  **-Greater chance of going bankrupt- loans have to be repaid**  **-May not be able to pay high return (dividend) to shareholders- they may go elsewhere**  **-Need to use collateral for loans** |

**Theory Questions**

1. **Give three reasons why ratios are prepared:**

* Evaluate company performance from one year to the next
* Evaluate company performance comparative to other businesses in the same industry
* Determine size of dividends payable to Ordinary Shareholders
* Calculate corporation tax payable to the government based on profits made
* Determine ability to acquire debt/equity capital for expansion

1. **Explain why the following stakeholders may be interested in financial information.**

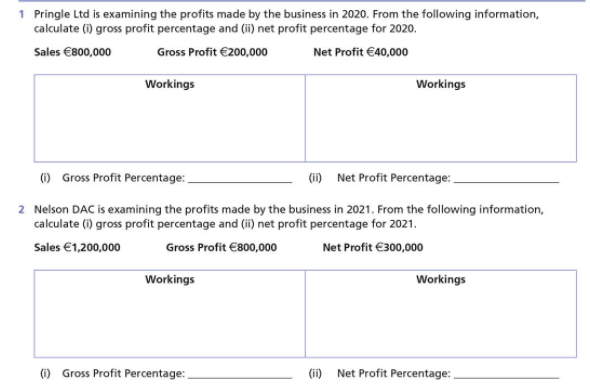
|  |  |
| --- | --- |
| **Management** | They will want information to know how the business has performed over the year and to learn if any changes are needed. This will help make decisions if needed. |
| **Shareholders** | •They will want to know if the money that they have put into the business has been used wisely by the firm in order to generate profits and pay them a dividend  •They want to know how much they can expect in dividends and they also want to know the value and security of their investment |
| **Banks** | They want to know if the business is profitable enough to be able to make loan repayments and interest repayments. |
| **Trade Unions** | They will keep an eye on the company’s profits because if they know the business is doing very well, they may look for wage increases. They are interested in the security of employment and the future prospects of the company (will it expand and take on more workers, what are the promotion prospects of the workers) |
| **Competitors** | They will examine a business’s sales and profits to see how big a threat the business is to them. |
| **Suppliers** | These are interested in a business’s accounts in order to assess the firm’s credit-worthiness. I.e. can the firm can pay for goods supplied on credit? |
| **Employees** | Will want to see if the firm is performing well for job security and promotion prospects. |
| **Government** | Will want to see the performance of the firm to assess how much tax it owes. |

1. **Give three limitations of Ratio Analysis:**

* Ratios do not take into account industrial relations issues in a business
* Ratios are based on past figures and not projected future ones
* Assets may not be shown to their full value
* Does not consider business environment, for example competitors or recession/Covid
* Inflation/deflation may impede comparisons from one year to the next
* Balance sheets are only true for the day they are written

**Profitability**

**Sample Questions-OL Level- Gross Profit Margin and Net Profit Margin**



**Gross Profit Margin = Gross Profit X 100**

**Sales 1**

**200,000/800,000 x 100/1 = 25%**

**Net Profit Margin = Net Profit X 100 =**

**Sales 1**

**40,000/800,000 x 100/1 = 5%**

**Gross Profit Margin = Gross Profit X 100**

**Sales 1**

**800,000/1,200,000 x 100/1 = 66.67%**

**Net Profit Margin = Net Profit X 100 =**

**Sales 1**

**300,000/1,200,000 x 100/1 = 25%**

1. **Work out Gross Profit and Net Profit Percentage from the following figures presented in the year 2023.**

**Sales €400,000 Gross Profit €250,000 Net Profit €50,000**

|  |  |
| --- | --- |
| **Workings** | **Workings** |

**Gross Profit Margin = Gross Profit X 100**

**Sales 1**

**250,000/400,000 x 100/1 = 62.5%**

**Net Profit Margin = Net Profit X 100 =**

**Sales 1**

**50,000/400,000 x 100/1 = 12.5%**

Profitability Higher Level

**Sample Question**

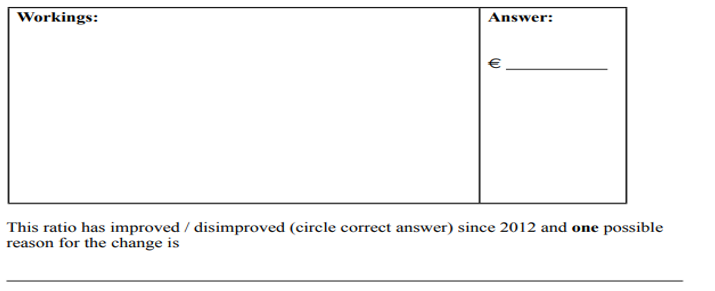
**Gross Profit- Expenses = Net Profit**

1. **In 2022 Value Ltd had a gross profit margin of 25%. Using the figures below calculate Value Ltd.’s gross profit margin for 2023.**

**Net Sales: €900,000**

**Expenses: €150,000**

**Net Profit: €150,000**

****

**2022**

Gross Margin (Gross Profit Percentage) =

Gross Profit x 100

Sales

Need to work backwards

**Net Profit +Expenses = Gross Profit**

**€150,000 +€150,000 = €300,000**

**300,000**

**900,000 x 100 = 33.33%**

**The Gross Profit Margin has increased from 25% to 33.33%. This is an improving trend. A possible reason for this could be an increase in selling price that has not had an effect on demand for their products/ prices have risen/ costs fallen etc…(from above)**

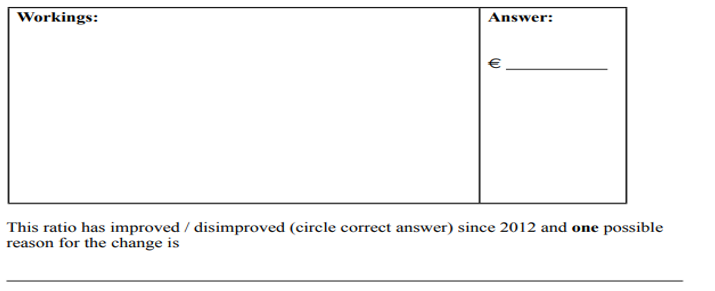
**B.**

**In 2022 Risk Ltd had a gross profit margin of 30%. Using the figures below calculate Risk Ltd.’s gross profit margin for 2023.**

**Net Sales: €800,000**

**Expenses: €50,000**

**Net Profit: €150,000**

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**2022**

Gross Margin (Gross Profit Percentage) =

Gross Profit x 100

Sales

Need to work backwards

**Net Profit +Expenses = Gross Profit**

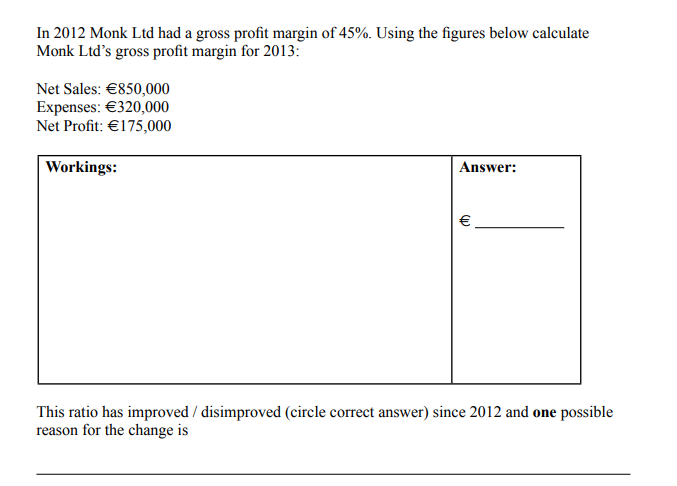
**€150,000 +€50,000 = €200,000**

**200,000**

**800,000 x 100 = 25%**

**The Gross Profit Margin has decreased from 30% to 25%. This is a negative trend. A possible reason for this could be an decrease in selling price that has had an effect on demand for their products/ prices have fallen/ costs risen etc…(from above)**

**2014 Mock**



Gross Margin (Gross Profit Percentage)

Gross Profit x 100

Sales

Need to work backwards

**Net Profit +Expenses = Gross Profit**

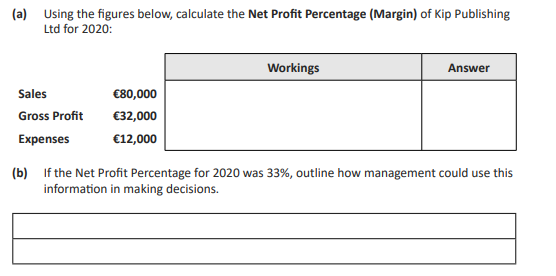
**€175,000 +€320,000 = €495,000**

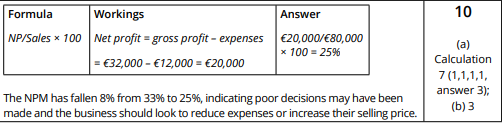
**495,000**

**850,000 x 100 = 58%**

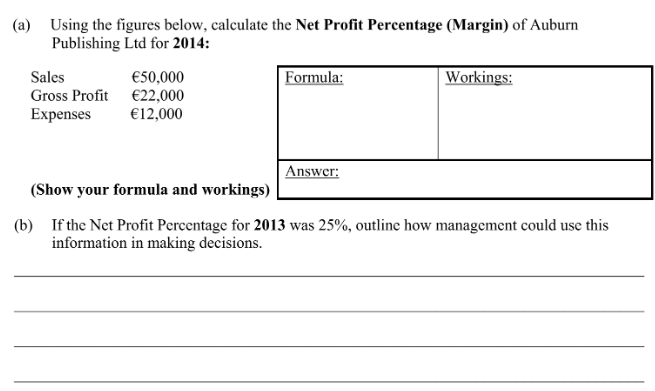
**The Gross Profit Margin has increased from 45% to 58%. This is an improving trend. A possible reason for this could be an increase in selling price that has not had an effect on demand for their products/ prices have risen/ costs fallen etc…(from above)**

**2023 Mock**



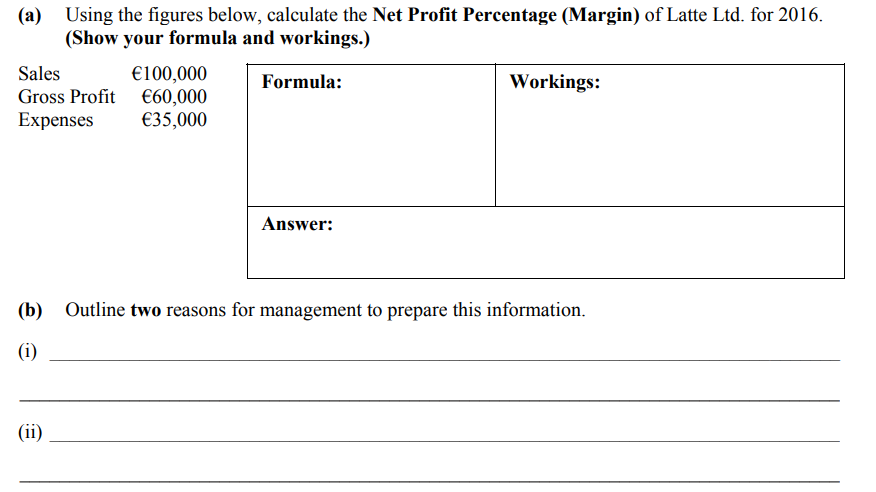


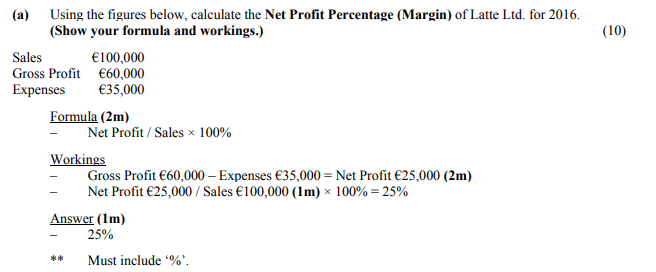
**2015 LC**





**2017 Mock**





**Reasons why Ratios are prepared**

• Evaluate company performance from one year to the next

• Evaluate company performance comparative to other businesses in the same industry

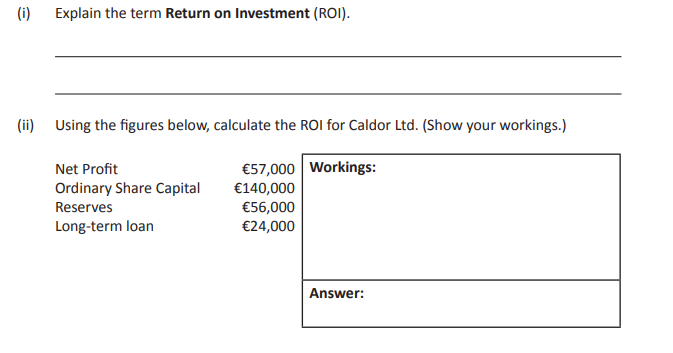
• Determine size of dividends payable to Ordinary Shareholders

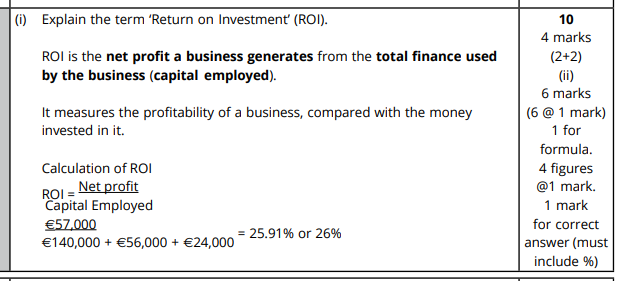
• Calculate corporation tax payable to the government based on profits made

• Determine ability to acquire debt/equity capital for expansion

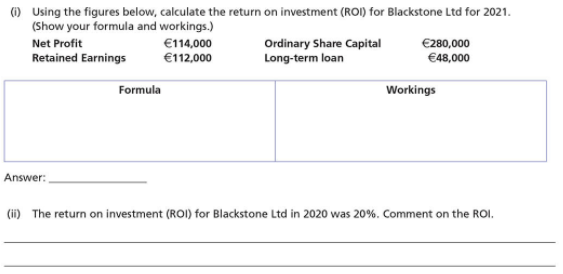
**Profitability- Return on Investment/Return on Capital Employed**

**2019 Mock**





**Sample Question**



Net Profit X 100 =

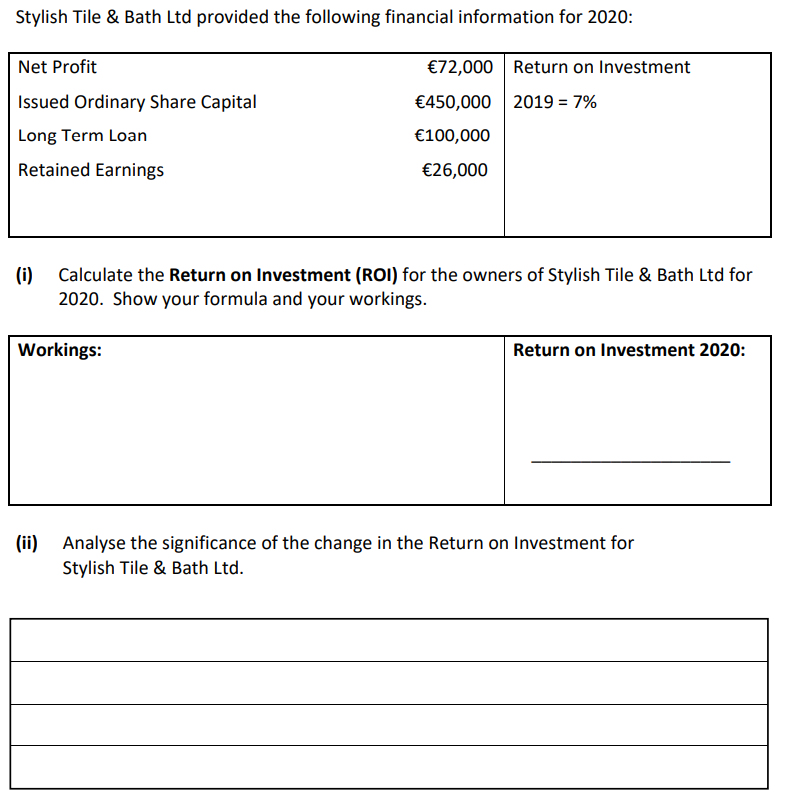
Capital Employed 1

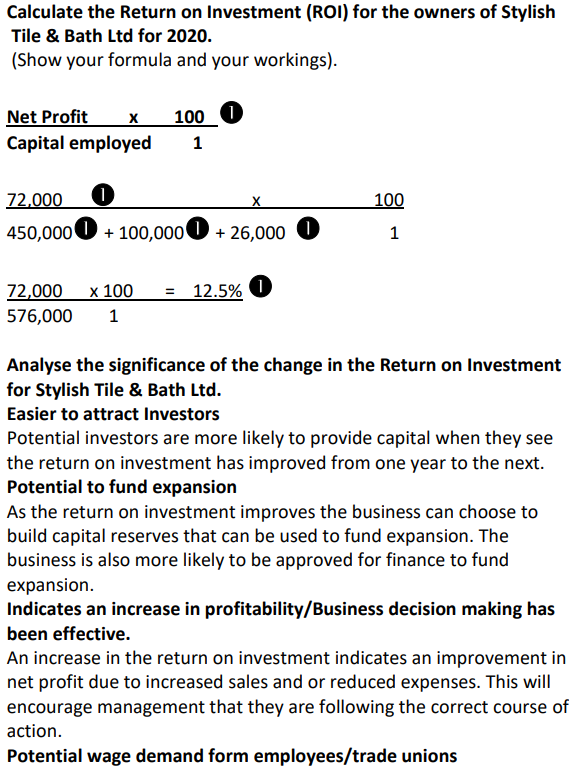
114,000 X 100 = 25.9%

(280,000 + 112,000 + 48,000) 1

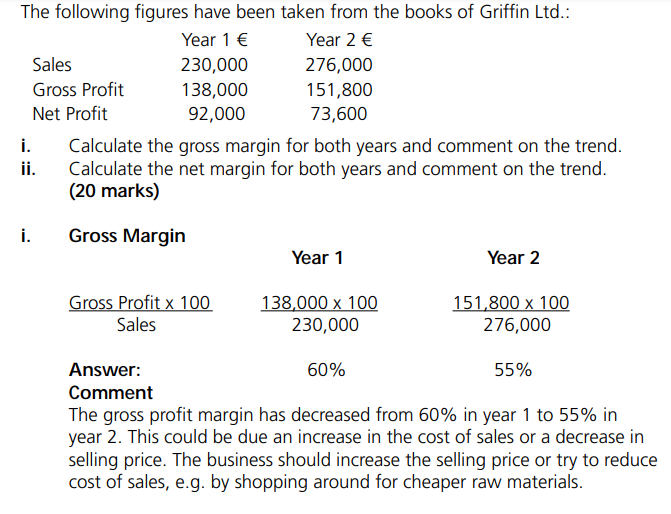
**Comment:** 25.9 % for the given company is very satisfactory as it is well above the rate of interest that would be earned if money was invested in a bank- will be attractive to potential investors to the business.

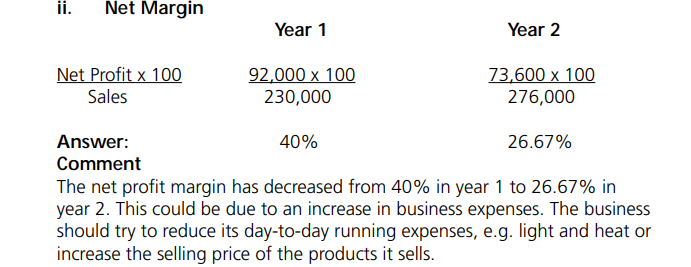
**2021 LC**

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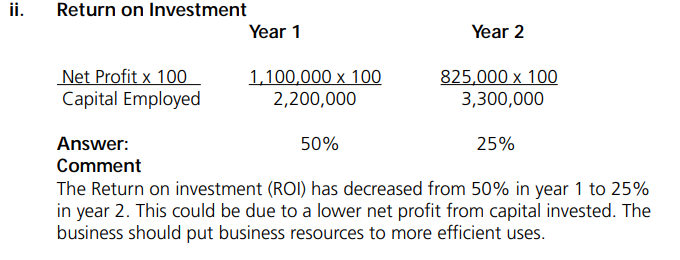
**Profitability Ratio Long Questions**

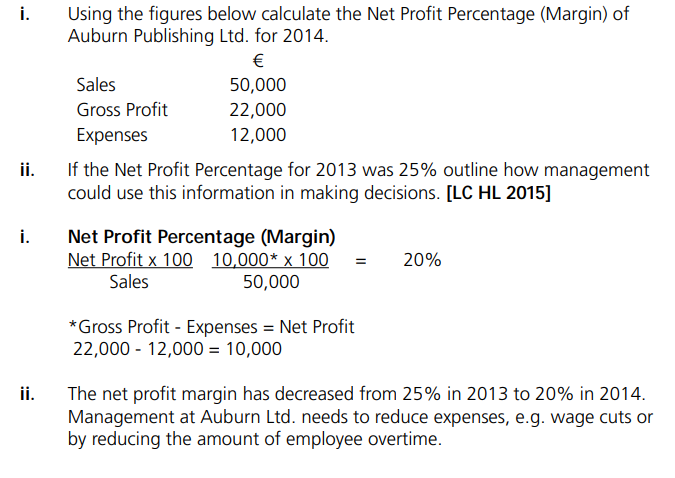


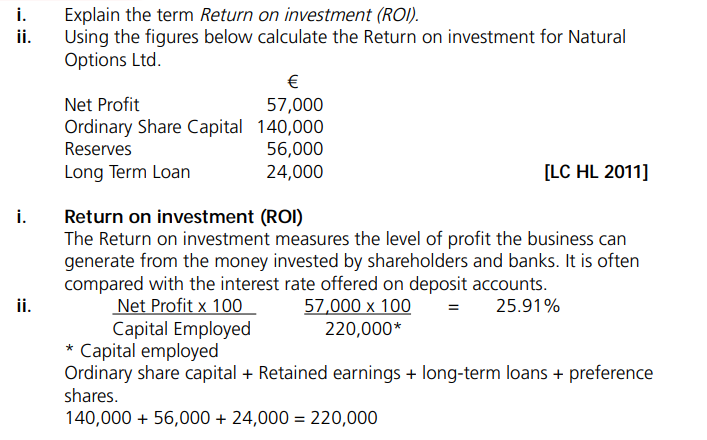


1. **The following figures have been taken from the Books of Foynes Ltd. Work out the Return on Investment from the figures presented and comment on the trend. (OL)**

|  |  |  |
| --- | --- | --- |
|  | **Year 1 €** | **Year 2 €** |
| **Net Profit** | 1,100,000 | 825,000 |
| **Capital Employed** | 2,200,000 | 3,300,000 |

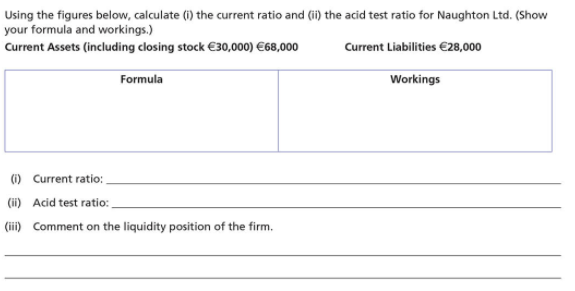


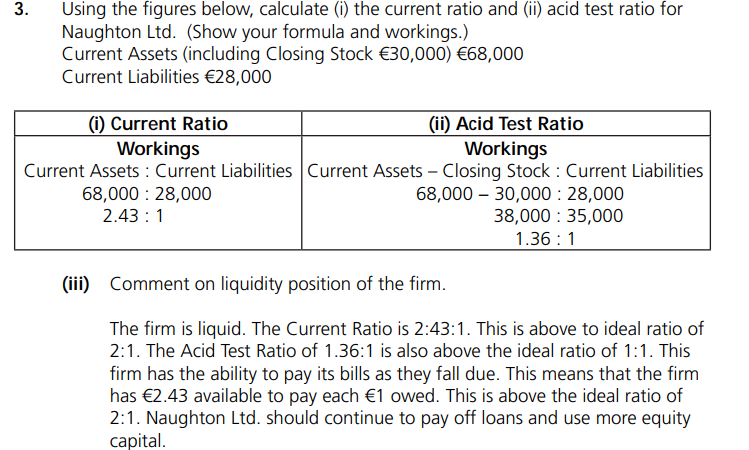




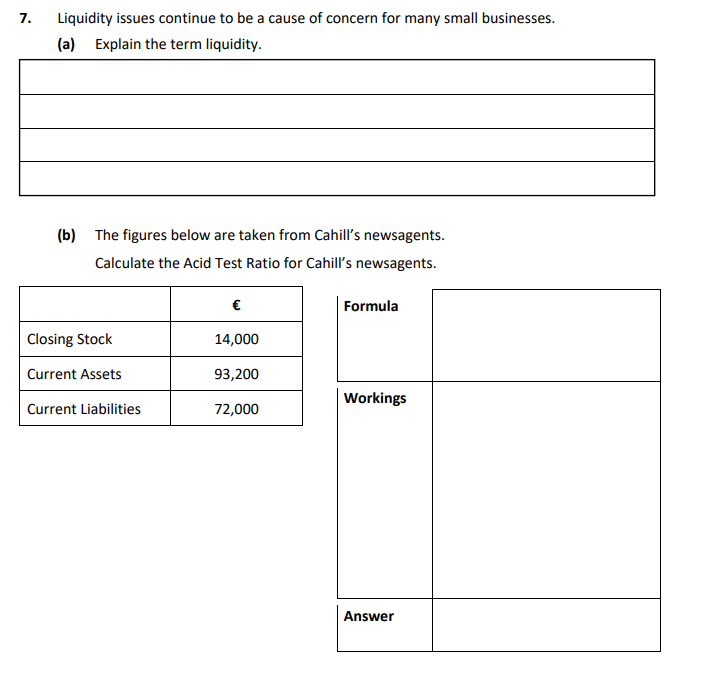
**Liquidity**

**Sample Question**





**2023 LC**

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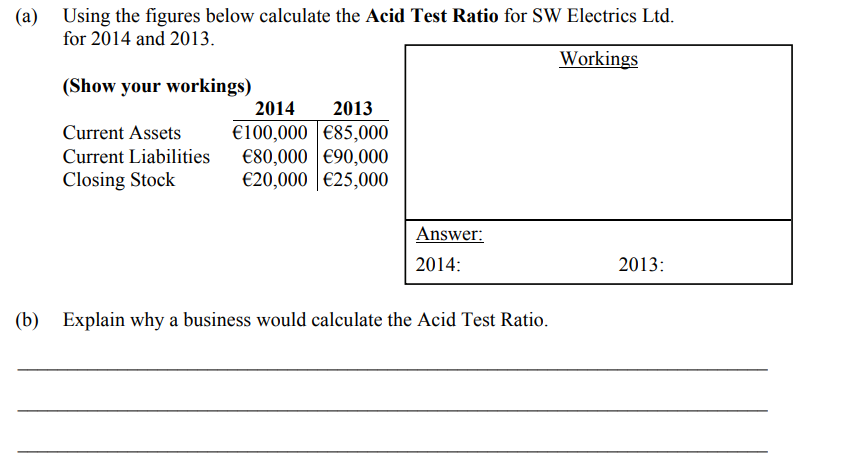
1. The liquidity of a business is a measure of its ability to pay its short term debts (current liabilities) as they fall due for payment.
2. Formula- **Current Assets – Closing Stock: Current Liabilities**

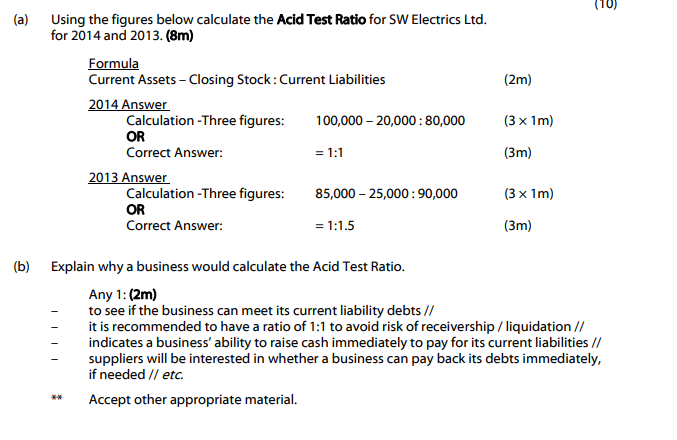
93,200- 14,000: 72,000

79,200: 72,000

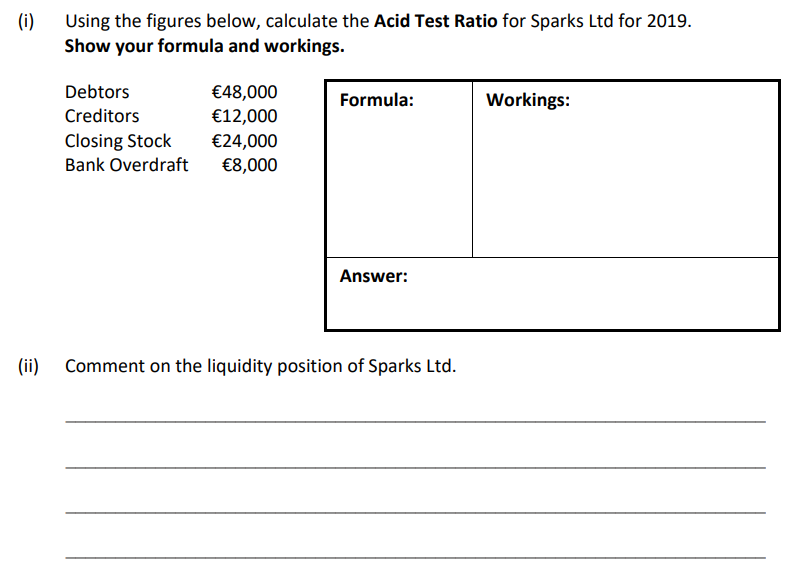
1.1:1

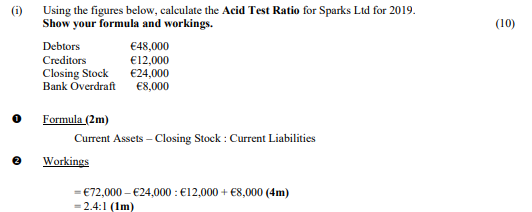
**2015 Mock**

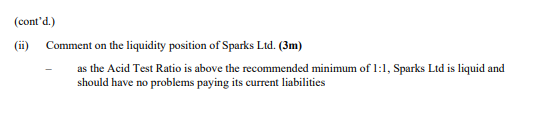
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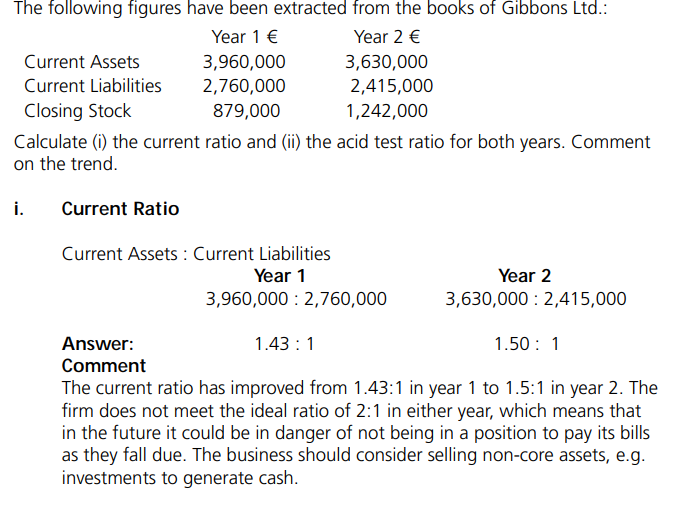
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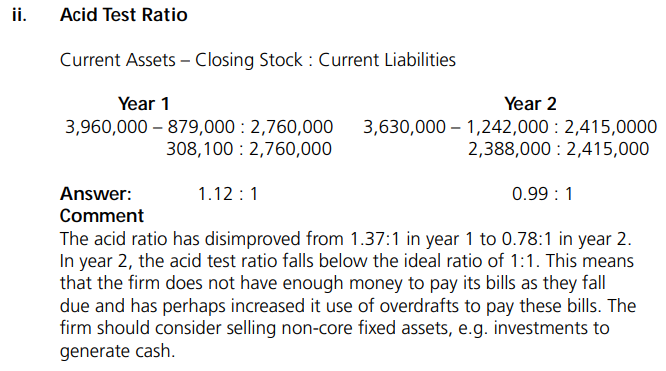
**2020 Mock**



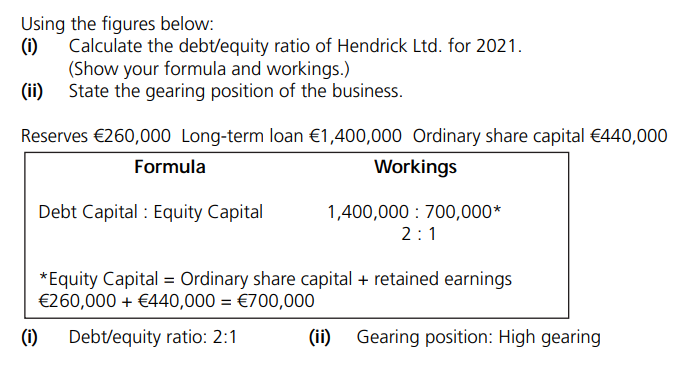








**Gearing**



**2006 LC**

Debt: Equity Ratio =

Long Term Loan: Ordinary Share Capital + Reserves

2004 2005

270,000: 320,000+40,000 140,000: 420,000+30,000

270,000: 360,000 140,000:450,000

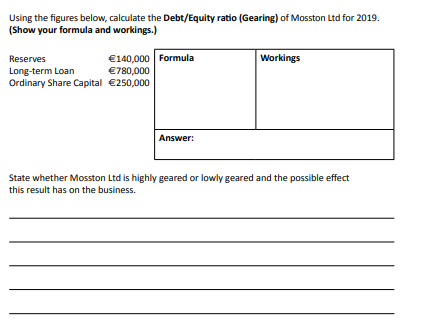
***0.75:1***  ***0.31:1***

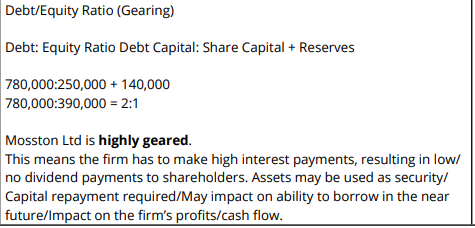
**This trend is improving.**

A possible reason could be:

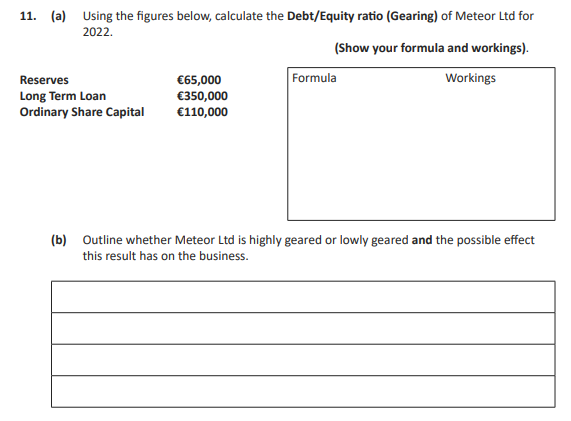
* The value of the loan has been reduced from €270,000 to €140,000, perhaps the business made a big payment on the loan
* They have received another €100,000 in shares

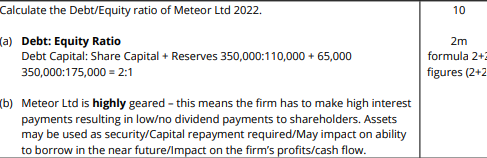
**2020 Mock**





**2023 Mock**





**Sample Question**

**Calculate the Debt/Equity Ratio for Smiley Ltd using the figures below and comment on the trend**

|  |  |  |
| --- | --- | --- |
|  | Year 1 | Year 2 |
| Retained Earnings | 204,000 | 263,500 |
| Equity (Ordinary) Share Capital | 1,190,000 | 1,190,000 |
| Long Term Loans | 300,000 | 200,000 |

**Formula**

**Debt** (Long Term Loans): **Equity Capital** (Ordinary Share Capital + Retained Earnings)

**Year 1 Year 2**

300,000: 1,190,000 + 204,000 200,000: 1,190,000 +263,500

300,000: 1,394,000 200,000: 1,453,500

**0.21:1 0.14:1**

**Analysis- Look at these 4 things**

**What happened:** The debt/equity ratio decreased from 0.21:1 in year 1 to 0.14:1 in year 2. This means the business has low gearing.

**Is this a positive for shareholders:** It is a positive for shareholders as there is less debt in the business meaning a greater chance of a higher dividend.

**Why:** This is because the firm has reduced its long term loan by €100,000 by repaying part of the amount borrowed/ retained earnings rose by €59,500.

**Solution:** The business should look to continue to reduce borrowings through regular repayments

***Therefore, this is the comment:***

**Comment on the trend (change from year-year)**

The debt/equity ratio decreased from 0.21:1 in year 1 to 0.14:1 in year 2. This means the firm has low gearing. It is a positive for shareholders as there is less debt in the business meaning a greater chance of a higher dividend.

*This is because the firm has reduced its long term loan by €100,000 by repaying part of the amount borrowed while retained earnings rose by €59,500.* *The business should continue to look to reduce borrowings through regular repayments.*

**2014 LC**

