Tute 3 on Ratios

16.2.4

Question 1

Annastacia Nicholls has requested your assistance with assessing her business' performance.

The following performance indicators have been calculated for the years ended 30 September 2015 and 2016.

	30 September 2015	30 September 2016
Working Capital Ratio	2.43:1	4.97:1
Quick Assets Ratio	1.67:1	0.72:1
Cash Flow Ratio	3.45 times	5.98 times
Debtors Turnover	62 days	49 days
Stock Turnover	38 days	67 days

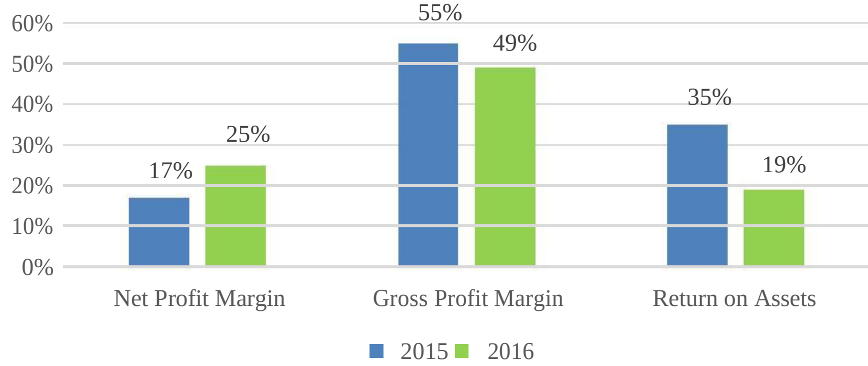
Annastacia has recently applied for a loan from the bank, however the bank advised her that she was unlikely to have the loan approved due to the business' poor liquidity. Annastacia doesn't understand how this is possible as she claims her cash sales have increased, and she has more money in the bank than she has ever had before.

a. **Analyse** the performance indicators above and explain to Annastacia the key concern which has led to the bank being concerned about her business' liquidity.

b. **Suggest** one strategy Annastacia can implement to improve her liquidity and efficiency.

c. **State** three non-financial indicators that Annastacia could use to further evaluate her entity's performance.

d. Using the information in the graph below, **explain** how it is possible that the Net Profit Margin can rise, despite the Gross Profit Margin falling in 2016.



	30 September 2015	30 September 2016	Industry Average
Asset Turnover	4.65 times	2.06 times	3.36 times

(c) Using the information in the graph and table above, **suggest** one strategy the owner could implement to improve the business' Return on Assets.

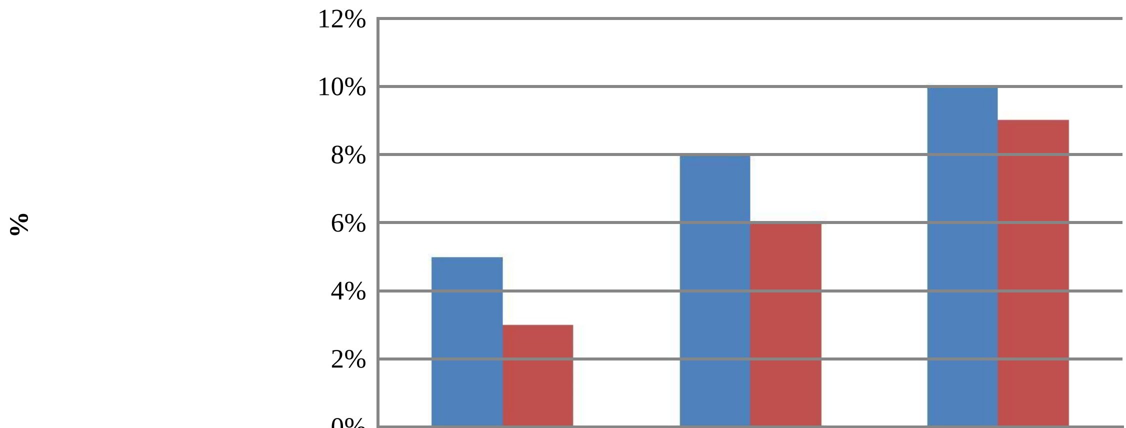
f. **Describe** two limitations of using performance indicators to assess an entity's performance.

16.2.may.4

Question 2

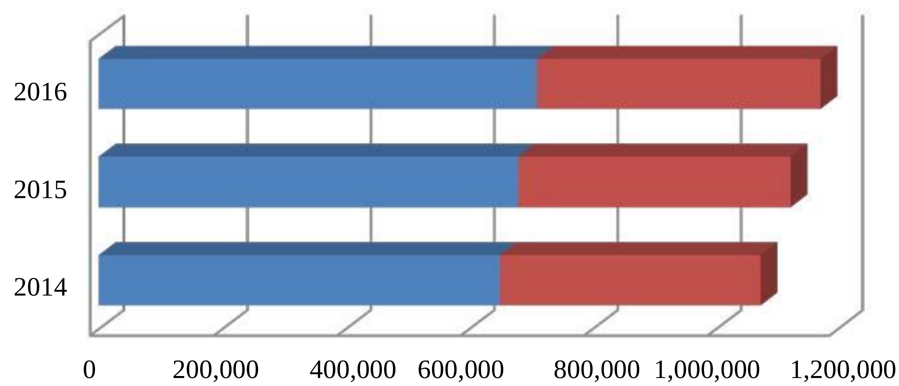
At 31 December 2016 the accountant provided the following information:

Graph 1



	2014	2015	2016
Return on Owner's Investment	5%	8%	10%
Return on Total Assets	3%	6%	9%

Graph 2



	2014	2015	2016
Sales	650,000	680,000	710,000
Cost of Goods Sold	422,500	442,000	461,500

The owner commented that he was pleased with the results shown because the improvement in Sales has led to a higher Net Profit and hence the higher return. Using the information in Graphs 1 and 2, **discuss** the owner's statement.

2016.sample.4

Question 3

Elizabeth La Trobe is an investor that analyses businesses using performance indicators prior to making a decision whether to invest in them or not. Her investments are usually in the form of loans to small businesses.

Elizabeth has the option of investing in any of the three businesses below:

	Business A	**Business B**	**Business C**
Gearing Ratio	25%	65%	90%

Elizabeth is risk-averse, meaning that she would rather invest in businesses with lower risk, compared to those taking on a greater risk.

a. **Identify** which of the three businesses above would be preferable for Elizabeth?

b. **Interpret** the performance indicator you selected in part a.

c. **Compare** and **contrast** vertical and horizontal analysis. In your response **describe** one advantage of each.

d. **Describe** the DuPont method of assessment, and provide an example of a performance indicator where this inter-relationship is evident.

William Spring's business Spring's Exhibition has provided you with the following information.

Return on Owner's Investment 2015	Return on Owner's Investment 2016	Return on Investing in Shares 2016	Return on Investing in Property 2016	Return on Investing in Cash 2016
4%	6%	8.5%	7%	2%

William is considering investing an amount of $150 000 from his personal savings into the business.

e. Based on the information in the table above, would you advise him to do this? In your response, you should **discuss** the reasoning behind your recommendation.

Since 2014, William's business has ended the year with a Debtors Turnover of 43 days, 65 days and 92 days respectively. In response to this alarming trend, William has increased the discount offered to debtors for early payment from 2% to 10%.

f. **State** three suggestions, other than providing a discount for early repayment, that William could implement to improve the entity's Debtors Turnover.

15.2.2

Question 4

The accountant has provided the following information for the last 2 reporting periods:

Indicator	Calculation	6 months ended 30 June 2015	6 months ended 31 December 2015
Net Profit Margin	Net Profit / Sales	8%	9%
Gross Profit Margin	Gross Profit / Sales	45%	49%

f. Define profitability.

g. Comment on the change in the profitability position of the business.

15.1.2

Question 5

At 31 December 2015 the following information was provided:

Ratio	30 June 2015	30 September 2015	31 December 2015
Net Profit Rate Net Profit / Sales x 100 / 1	6%	8%	9%
Gross Profit Rate Gross Profit / Sales x 100 / 1	51%	51%	44%

a. Explain what is meant by the term profitability.

b. Explain how the trends in the indicators may have occurred.

14.2.3.

Question 6

The owner of **Pedal Power** is happy with the profit made by the business this reporting period but would like a better analysis of the business's performance. The accountant provides the following information:

Indicator		Year Ended 31 December 2013	Year Ended 31 December 2014
Net Profit Rate	$\frac{\text{Net Profit}}{\text{Sales}} \times \frac{100}{1}$	10.5%	8%
Gross Profit Rate	$\frac{\text{Gross Profit}}{\text{Sales}} \times \frac{100}{1}$	42.0%	47%
Return on Owner's Investment	$\frac{\text{Net Profit}}{\text{Average Capital}} \times \frac{100}{1}$	7%	4.5%

a. **Explain** the trend in the Net Profit Rate over the period shown.

b. **Explain** how the business could have a declining Net Profit Rate but an improved Gross Profit Rate.

c. **Explain** what is shown by the Return on Owner's Investment and **explain** one reason why the owner may be happy with the trend in this ratio.

d. **Identify** one other indicator the owner could use to assess profitability.

e. **Provide** one strategy the owner could use to improve the Return on Owner's Investment.

14.1.3.

Question 7

After completing the Income Statement for the year ended 31 December 2014 the accountant prepared the following information:

Indicator		Year Ended 31 December 2014	Industry Average 2014
	Net Profit x 100	12.27%	8%

Net Profit Rate	Sales 1		
Gross Profit Rate	Gross Profit x 100 Sales 1	41.74%	52%

b. **Define** profitability.

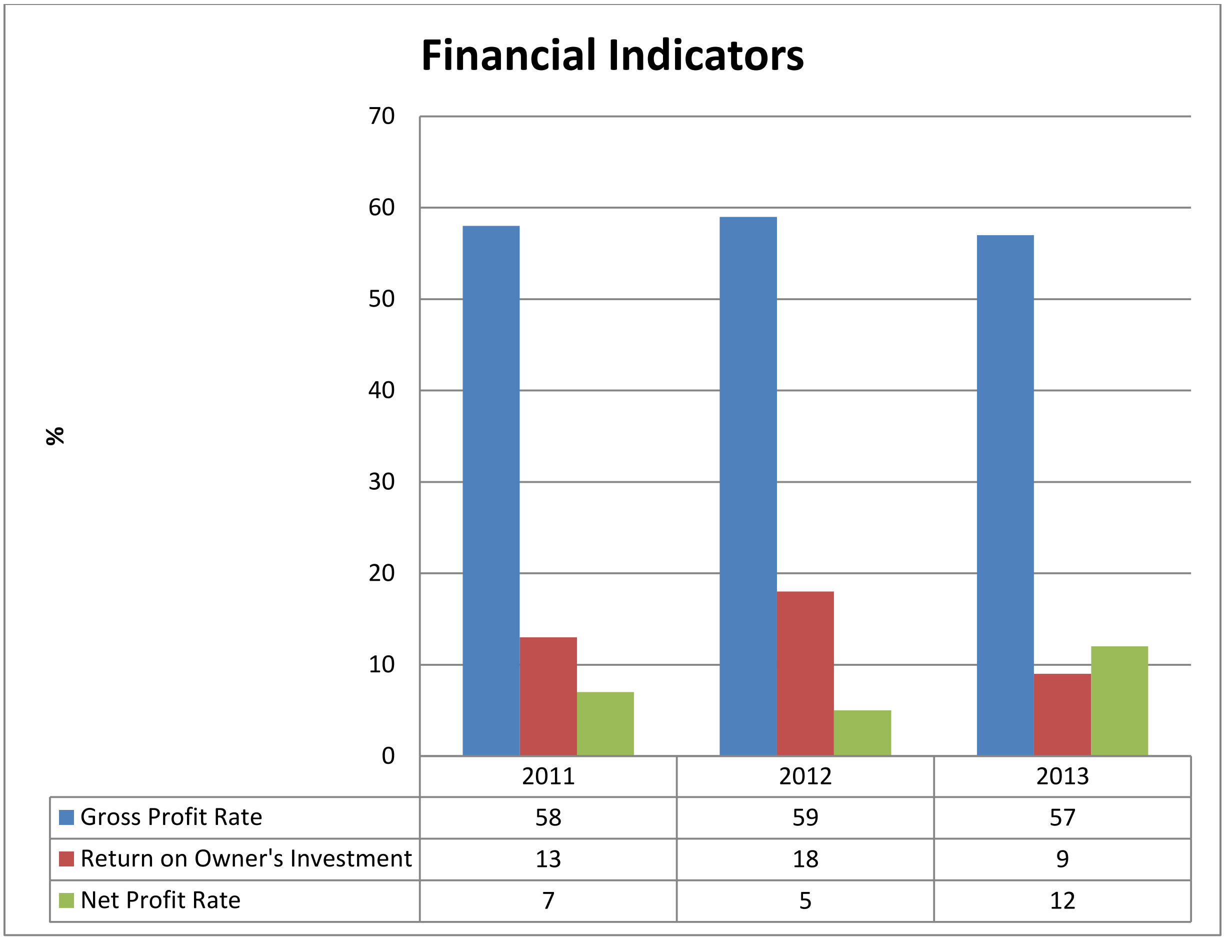
The owner is pleased with his Net Profit Rate but commented that he believes his Gross Profit Rate should be closer to the Industry Average.

c. **Explain** how the business could have a better Net Profit Rate but a lower Gross Profit Rate than the Industry Average and provide one strategy the business could adopt to improve the Gross Profit Rate.

13.1.5

Question 8

The accountant prepared an analysis of the business' performance in the area of profitability. The following information was prepared:



a. List two reasons to explain how the Net Profit Rate improved yet the Gross Profit Rate declined.

b. **Define** profitability and distinguish it from profit.

12.2.4

Question 9

After the preparation of reports at 31 December 2012 the accountant for ‘Barry’s Boats’ provided the following information:

	2011	**2012**	**Budgeted 2013**
Debtors Turnover	34 days	37 days	35 days

Creditors Turnover 41 days 36 days 40
days

Credit terms: 1/7, n30

a. Define Debtors Turnover and explain the trend in that indicator.

b. Discuss the trend in Creditors Turnover. In your response explain why the owner should be concerned.

c. Explain how the Industry Average figure can be used by a business.

12.1.2.

Question 10

a. Distinguish between profit and profitability.

At 31 December 2012 the accountant provided the following information:

	2011	**2012**
Net Profit Rate	7%	9%
Gross Profit Rate	45%	42%

b. Explain what is shown in the table and identify a possible reason to explain the trends.

12.1.5.

Question 11

At 31 December 2013 the accountant also produced the following information:

	2012	**2013**	**Industry Average 2013**
Return on Owner's Investment	7%	8%	10%

a. Explain why the owner may not need to be concerned with the profitability of the business.

11.2.4

QUESTION 12

Michael Walters owns and operates a small business – 'Walter's Water Tanks' - selling water tanks to local businesses and households.

Michael maintains a perpetual stock recording system and uses the FIFO cost assignment method. He also uses the accrual accounting method of recording and reporting and maintains control accounts and subsidiary records for Debtors, Creditors and Stock.

Michael prepares annual financial reports on 31 December each year.

He has been concerned for some time about the cash flow of his business. The following information was prepared by the accountant:

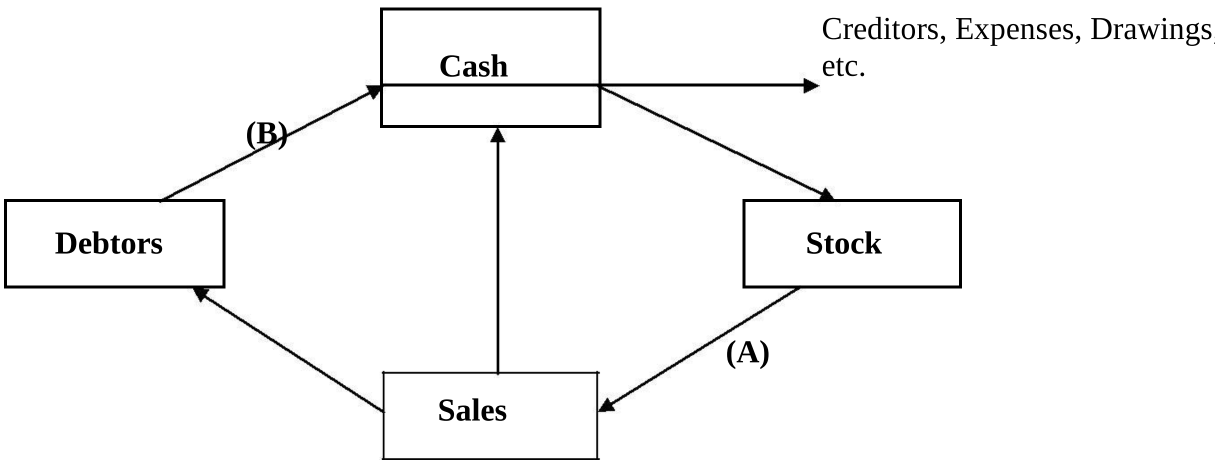
	31 December 2010	**31 December 2011**
Bank balance	$(14,000)	$(16,000)
Working Capital Ratio	1:1.42	1:1.45
Quick Asset Ratio	1:1.07	1:0.70

d. Apart from the increasing overdraft, **explain** why the accountant is concerned about business liquidity.

b. **Explain** why stock and prepayments are excluded from the calculation of the Quick Asset Ratio.

c. Excluding the ratios shown above, **identify** one other way of monitoring business liquidity.

The accountant has also prepared the following diagram for Michael to explain the business cash cycle:



- **e. Identify** the ratios that measure the length of the cash cycle at lines marked A and B on the diagram above.

11.1.4

Question 13

After the preparation of annual financial reports the accountant of 'Sully's Sports Store' prepared the following information at 31 December 2011:

	2010	2011
Working Capital Ratio	1.3:1	1.43:1
Quick Asset Ratio	0.9:1	1.1:1
Bank balance at 31 December	$2,500 Cr	$4,200 Dr
Gearing Ratio	47%	51%

(a) Explain what is meant by the term 'stability'.

(b) From the information above, **explain** one possible reason for the improvement in both the Working Capital Ratio and the Quick Asset Ratio.

(c) State whether the Gearing Ratio has improved or worsened.

(d) Explain one possible negative effect of the change in Gearing Ratio on the liquidity of the

busi
ness.

(e) Identify one other measure that could be used to assess the stability of the business.

10.2.3

Question 14

After the preparation of annual financial reports the accountant of 'Sportsworld' prepared the following information at 31 December 2010:

		2009	**2010**	**Industry Average**
Stock Turnover		65 days	69 days	67 days
Debtors Turnover		27 days	32 days	30 days
Creditors Turnover		41 days	48 days	51 days
Credit terms:	Debtors 2/7,n30			
	Creditors 2/14,n45			

(a) Calculate the Cash Cycle for 2009 and 2010

(b) Explain what is shown by the cash cycle. In your answer identify if the cash cycle of the business has improved or worsened between 2009 and 2010.

(c) Explain the positive effect on profitability and the negative effect on liquidity of the change in Debtors Turnover from 2009 to 2010.

(d) Explain why comparison with the Industry Average is not always appropriate for a business.

(e) The owner believes that to gain a better indication of liquidity, the Working Capital Ratio should be calculated. **Explain** what is shown by the Working Capital Ratio.

(f) Another indicator that can be used to assess Liquidity is the Quick Asset Ratio. **Explain** why Stock is not considered a 'Quick Asset'.

The following questions are from unit 1

10.2.4

Question 15

After preparation of an Income Statement at 31 December 2010 the accountant prepared the following profitability performance indicators:

	2009	**2010**
Return on Sales	11%	9%
Gross Profit Rate	49%	51%
Return on Owners Investment	5%	4%

(a) Explain what is meant by the term 'profitability'.

(b) State whether the profitability of the business has improved or worsened. **Justify** your response.

(c) Explain how it is possible for:

- Gross Profit Rate to improve; yet
- Return on Sales to worsen

11.1.3

Question 16

The accountant for 'Debbie's Dreamworld' – a business selling beds and bedroom accessories, prepared the following data for the owner:

	2010	**2011**	**Industry Average 2011**
Return on Owner's Investment	10%	8%	11%
Return on Assets	5%	7%	8%
Net Profit	$77,800	$71,400	$83,200

(a) Explain the difference between profit and profitability.

(b) Compare the performance of 'Debbie's Dreamworld' to the Industry Average.

(c) Explain the performance of 'Debbie's Dreamworld' in 2011 in comparison to 2010. In your response identify the movements in the performance indicators.

(d) Explain how Return on Assets can improve while Return on Owner's Investment deteriorated between 2010 and 2011.

(e) Explain one limitation of using ratios such as Return on Owner's Investment to assess performance.

(f) State two limitations of comparing 'Debbie's Dreamworld' performance with the Industry Average.

Total:

11.2A.3 lastpart

Question 17

At 30 June 2011 Fiona's accountant prepared financial reports for the first 5 months of operations. The accountant also provided the following information:

Return on Owner's Investment: 6%

e. **Explain** to Fiona what is meant by Return on Owner's Investment.

f. **Identify** one measure Fiona could compare her Return on Owner's Investment to determine how well her business is performing.

(1

11.2.1 last part

Question 18

At 31 December 2011 the accountant prepared the following information:

	2010	**2011**
Working Capital Ratio	1:1.4	1:1.3
Quick Asset Ratio	1:1.1	1:0.8

Gearing Ratio	48%	52%

d. **Explain** the trend in the performance of the business in terms of liquidity.

e. **Identify** and **explain** two possible causes of the changes in the ratios shown above.

f. **Identify** one other financial indicator and one benchmark the business could use to better assess performance in terms of liquidity.

12.1.1 last part

Question 19

After preparation of the Balance Sheet at 1 February 2012, the accountant provided the following information:

Working Capital Ratio	0.92:1
Quick Asset Ratio	0.29:1
Gearing Ratio	32.5%

a. Comment on what is shown by these ratios and what they mean in terms of the liquidity and stability of the business.

12.2.1. last part

Question 20

After preparation of a Balance Sheet at 1 January 2012, the accountant stated that while the business was financially stable, the liquidity of the business was a concern.

a. Identify one financial indicator that can be used to measure performance in terms of liquidity and one financial indicator that can be used to measure performance in terms of stability.

b. Explain what is meant by liquidity and stability.

c. Explain how it is possible for a business to be financially stable yet have liquidity problems.

13.1.1 last part

Question 21

The owner is now able to compare the performance of his business and so prepares the following financial indicators:

	June 2013	July 2013
Working Capital Ratio <u>Current Assets</u> Current Liabilities	0.92:1	1.10:1
Quick Asset Ratio <u>Current Assets – (Stock + Prepaid Expenses)</u> Current Liabilities – Bank Overdraft	0.29:1	0.41:1
Gearing Ratio <u>Total Liabilities</u> x <u>100</u> Total Assets 1	32%	29%

- **a.** Define liquidity.

- **b.** Describe what is shown by each indicator and identify the trend in each financial indicator.

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13.2.1

Question 22

Mario Cozzo has been operating a small business selling imported furniture for 4 years. He has been satisfied with the performance of the business and believes now is the right time to expand his business by opening a second store.

His accountant has suggested he may wish to review the following information:

	2012	2013
Working Capital Ratio		

Current Assets / Current Liabilities	0.92:1	0.83:1
Quick Asset Ratio Current Assets – (Stock + Prepaid Expenses) / Current Liabilities – Bank Overdraft	0.69:1	0.41:1
Gearing Ratio Total Liabilities / Total Assets x 100 / 1	42%	59%

a. Explain what is meant by the term‘stability’ in relation to the financial position of the business.

b. Explain why Bank Overdraft is excluded from the calculation of the Quick Asset Ratio.

c. Describe the liquidity position of the business. In your answer state whether liquidity has improved or deteriorated over the period shown.

In order to expand the business as hoped the owner will need $50 000. Two options for the owner are:

- Borrow $50 000 from a local bank, repaying the Loan at $1 000 per month plus interest
- Owner contribute $50 000 cash from his own savings

d. Explain the effect of each finance option on the liquidity and stability of the business.

14.1.1 last part

Question 23

Using the information in the Balance Sheet prepared above, Amy’s accountant determined that the Gearing Ratio of the business was 76%.

a. Explain what is meant by stability.

b. Explain what a Gearing Ratio of 76% means.

14.1.5 last part

Question 24

At 31 July 2014 after reports had been prepared, the accountant provided the following information relating to the liquidity and efficiency of the business:

Indicator		Month ended 31 July 2014
Working Capital Ratio	Current Assets / Current Liabilities	1.1:1
Quick Asset Ratio	Current Assets – (Stock + Prepayments) / Current Liabilities – Bank Overdraft	0.6:1
Debtors Turnover	Average Debtors x 365 days / Credit Sales	36 days

a. Define liquidity and efficiency.

b. Explain why Stock is excluded from the calculation of the Quick Asset Ratio.

c. State one reason why the owner should not be disappointed with the performance of the business.

d. Provide one strategy the business could use to improve Debtors Turnover.

14.2.5 last part

Question 25

After preparation of the Balance Sheet the following information was prepared:

Indicator		Year ended 30 June 2013	Year ended 30 June 2014
Stock Turnover	Average Stock x 365 days / Cost of Goods Sold	54 days	51 days
Creditors Turnover	Average Creditors x 365 days / Credit Purchases	28 days	31 days
Debtors Turnover	Average Debtors x 365 days / Credit Sales	34 days	29 days

a. The indicators shown in the table measure the efficiency of the business. Define efficiency, state whether the efficiency of the business has improved or worsened and justify your response.

15.1.1 last part

Question 26

At 30 April 2015 the accountant prepared the following information

Indicator		**Month ended 30 April 2015**
Working Capital Ratio	Current Assets / Current Liabilities	1.4:1
Quick Asset Ratio	Current Assets – (Stock + Prepayments) / Current Liabilities – Bank Overdraft	0.85:1

- **a. Explain** what is meant by the term liquidity and what is indicated by the two indicators provided.

- **b. State** whether the transaction on 2 April 2015 would have improved or worsened the Working Capital Ratio.

15.1.5 last part

Question 27

At 30 June 2015 after reports had been prepared, the accountant provided the following information:

	31 December 2014	30 June 2015
Gearing Ratio Total Liabilities x 100 / Total Assets 1	41%	62%

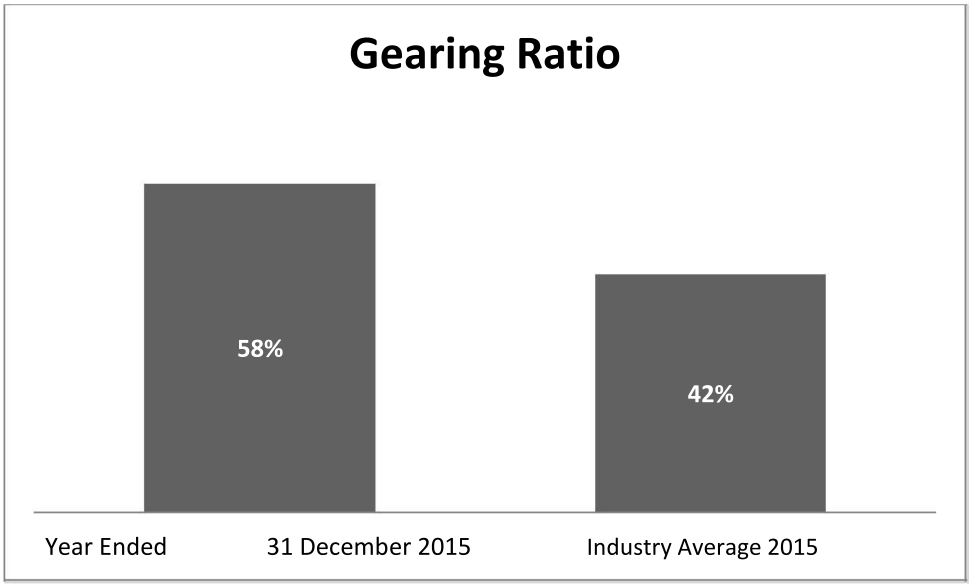
- **a.** Describe the stability position of the business, indicating whether stability has improved or deteriorated and providing a possible reason for the change in stability.

- **b.** State one limitation of using ratios as indicators of performance.

15.2.1 last part

Question 28

At 31 December 2015 the accountant prepared the following:



e. **Explain** what is meant by stability.

f. **Explain** why the business owner should not be concerned when comparing his Gearing Ratio with the Industry Average.