Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Please answer the following ratio analysis questions. Reference pages 207-212 in your book if help is needed.

**Profitability Ratios**

**GPM= Gross Profit/Sales Revenue X 100**

**NPM = Net Profit Before Interest and Tax/Sales Revenue X 100**

1. Suppose a business has sales revenue of $350 million and gross profit of $150 million. Calculate. Calculate its GPM, using the GPM formula.
   1. Justify your answer. What does it mean to have their percentage?
2. A business that grows strawberries has sales revenue of $500 million. Their gross profit is $250 million. Please calculate its GPM, using the GPM formula.
   1. Justify your answer. What does it mean to have their percentage?
3. How can a business improve their Gross Profit Margin?
4. A firm has sales revenue of $200 million and a net profit before and tax $85 million. Calculate its NPM.
   1. Justify your answer. What does it mean to have their percentage?
5. How can business improve their Net Profit Margin?
6. A business has current assets totaling $1,000,000 while its current liabilities amount to $500,000. What is their current ratio?
7. What does it mean to have a current ratio above 2?
8. What are some possible strategies to improve current ratio?
9. Suppose in the example above the business has stock worth $150,000. What is its acid test ratio?
   1. Justify your answer. What does the above answer mean for the business?

Please answer the following questions about Investment Appraisal. Reference pages 233-235 in your book if help is needed.

**Investment Appraisal**

**Payback = Initial Investment Cost/Annual Cash Flow From Investment**

**Extra Cash Inflow Required/Annual Cash flow in last year X 12**

**Average Rate of Return = Total returns - Capital Cost**

**Years of Usage\_\_\_\_\_\_\_\_\_\_\_ X 100**

**Capital Cost**

1. A construction engineer plans on investing $300,000 in a new cement - mixing machine and estimates that it will generate about $75,000 in annual cash flow. Calculate the payback period for the machine.
2. Another construction engineer aims to invest $400,000 in a new timber-cutting machine is expected to generate the following cash flows in the first years: $70,000, $100,000, $120,000, $200,000. Its payback period can be identified by calculating the cumulative cash flow.

|  |  |  |
| --- | --- | --- |
| Year | Annual Net Cash Flows $ | Cumulative Cash Flows $ |
| 0 | $400,000 | ($400,000) |
| 1 |  |  |
| 2 |  |  |
| 3 |  |  |
| 4 |  |  |

3.) A business considers purchasing a new commercial photocopier at a cost $160,000. It expects the following revenue streams for the next five years; $31,000, $52,000, $76,000, $91,000 and $102,000. Calculate its ARR.

4.) What are the advantages of the ARR?