

Calculating Gross Profit Margin and Net Profit Margin

Method and Worked Example

Gross Profit Margin

To calculate Gross Profit Margin (GPM), two figures from the Profit & Loss Account (Income Statement) are needed:

Sales Revenue and Gross Profit.

The formula for calculating GPM is:

The answer is given as a percentage.

$$\frac{\text{Gross Profit}}{\text{Sales Revenue}} \times 100$$

Net Profit Margin

To calculate Net Profit Margin (NPM), two figures from the Profit & Loss Account (Income Statement) are needed:

Sales Revenue and Net Profit.

The formula for calculating NPM is:

The answer is given as a percentage.

$$\frac{\text{Net Profit}}{\text{Sales Revenue}} \times 100$$

For example, Keely Jackson owns a small business in Reading selling shoes and trainers to mainly female customers. Keely's most recent Profit & Loss Account (Income Statement) is shown below:

Sales Revenue	£50 000
Cost of Sales	£30 000
Gross Profit	£20 000
Expenses	£15 000
Net Profit	£5 000

Keely's GPM is calculated as follows:

$$\frac{\text{Gross Profit}}{\text{Sales Revenue}} \times 100 = \frac{\text{£20 000}}{\text{£50 000}} \times 100 = 40\%$$

The result of 40% shows that for every £1 of sales Keely made through selling shoes and trainers, £0.40 was gross profit and £0.60 was cost of sales.

Keely's NPM is calculated as follows:

$$\frac{\text{Gross Profit}}{\text{Sales Revenue}} \times 100 = \frac{\text{£5 000}}{\text{£50 000}} \times 100 = 10\%$$

The result of 10% shows that for every £1 of sales Keely made through selling shoes and trainers, £0.10 was net profit and £0.90 was total costs (cost of sales and expenses).

Question 1

Charlie Miskin owns a café in Southampton. In 2016, Charlie produced the following Profit & Loss Account (Income Statement). Use the information below to calculate Charlie's GPM and NPM (give your answers to 1 d.p.)

Sales Revenue	£120 000
Cost of Sales	£67 000
Gross Profit	£53 000
Expenses	£38 000
Net Profit	£15 000

Question 2

Mikey Winterworth owns a small business selling electronic components to other businesses. Mikey has produced the following Profit & Loss Account (Income Statement) for the last 12 months. Mikey needs help in calculating his GPM and NPM. Use the information below to help you calculate both of these ratios. Give your answers to 1 d.p.

Sales Revenue			£73 000
Cost of Sales			
	Opening Stock	£8 000	
	Purchases	£13 500	
	Closing Stock	£6 750	£14 750
Gross Profit			£58 250
Expenses			£43 750
Net Profit			£14 500

Question 3

David McKinneth manufactures and sells glass cabinets from his workshop in the Lake District. The Profit & Loss Accounts (Income Statements) for the last three trading periods are shown below.

	2014	2015	2016	
Sales Revenue	£69 570	£76 525	£81 275	
Cost of Sales	£43 750	£45 625	£46 530	
Gross Profit	£25 820	£30 900	£34 745	
	Rates	£4 750	£4 850	£4 950
	Rent	£5 200	£5 300	£5 400
	Wages	£7 000	£7 750	£9 000
Total Expenses	£16 950	£17 900	£19 350	
Net Profit	£8 870	£13 000	£15 395	

- a) Using the information above, calculate the GPM and NPM for each of the three years shown. Give all answers to 1 d.p.
- b) Explain what is happening to GPM and NPM between 2014 and 2016.

Question 4

Elle Fox owns a business in Tenby Wells making horse saddles. The following information is available for the last three years of trading.

	2014	2015	2016
Sales Revenue	£72 450	£76 250	£77 750
Opening Stock	£6 450	£6 550	£7 450
Purchases	£26 550	£29 750	£31 250
Closing Stock	£6 550	£7 450	£8 450
Cost of Sales	A	£28 850	£30 250
Gross Profit	£46 000	C	£47 500
Rates	£4 750	£4 850	£4 950
Rent	£5 200	£5 300	£5 400
Wages	£7 000	£7 750	£9 000
Total Expenses	£16 950	£17 900	B
Net Profit	D	£29 500	£28 150
GPM	63.5%	E	61.1%
NPM	G	38.7%	F

- Using the information in the table, calculate the missing figures and ratios.
- Which year was sales revenue the lowest?
- In which year was cost of sales the highest?
- What has happened to the amount paid in rent each year?
- In what year was net profit the highest?
- What has happened to GPM from 2014 to 2016?

Answers

Question 1

GPM: 44.2%

NPM: 12.5%

Question 2

GPM: 79.8%

NPM: 19.9%

Question 3

a)

	2014	2015	2016
GPM	37.1%	40.4%	42.7%
NPM	12.7%	17.0%	18.9%

b) They are both increasing, so the business is improving in terms of the profit they are making. The figures show that they are selling more products (or selling the same with increased prices) and the corresponding increase in costs is not as high as the increase in revenue and therefore the GPM and NPM is improving over the 3 years.

Question 4

A. £26 450

B. £19 350

C. £47 400

D. £29 050

E. 62.2%

F. 36.2%

G. 40.1%

a)

b) 2014

c) 2016

d) Increased (by £100 a year)

e) 2015

f) Decreased