

Chapter Three

Application of Percentages in Business

Part III: Commission

Commission is

- Amount in RM earned based on the performance or sales made.
- It can be the salary for the salesperson or maybe additional salary if he/she has other fixed salary.

Type I: Simple Commission

- Example 1:
- If a salesperson receives 2% commission from his sales, how much will he receive if his sales are worth RM970?
- Solution:
- $\text{Earning} = \text{Commission} = 2\% \times 970$
- $= \text{RM}19.40$

Try 1:

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- Norman made RM25 000 last month. He is entitled for commission 40% on sales. Calculate his income or commission last month.
 - Solution: Income or commission = $40\% \times 25000$
 - $= \text{RM}10\ 000$

Example 2

- Fatin received RM5430 commission from RM80,000 worth of sales for the month of August. Compute the rate of commission that she earned.
- Solution:

Commission = rate of commission x Sales

$$5430 = r \times 80\,000$$

$$\frac{5430}{80\,000} = r = 0.0678 = \mathbf{6.78\%}$$

$$80\,000$$

Try 2:

Example 3:

- A company pays its salesperson a commission of RM400. If the rate of commission is 4%, find the value of sales that the salesperson has made.
- Earning = commission = rate comm X sales
- $400 = 4\% \times \text{sales}$
- $\frac{400}{4\%} = \text{sales} = \mathbf{RM10\ 000}$
- 4%

Try 3:

- Nurin works at an athletic footwear store. She receives 8% commission on sales. Find her sales made if the commission she earned is RM5800.
- Earning = commission = rate comm X sales
- $5800 = 8\% \times \text{sales}$
- $\frac{5800}{8\%} = \text{sales} = \mathbf{RM72\ 500}$
- 8%

Example 4:

- Syazwani a salesperson entitled for 50% commission on sales excess RM10 000. If she did RM25 000 sales last month, find her earning.
- $\text{Earning} = \text{Comm} = 50\% \times \text{sales excess } 10\,000$
- $= 50\% \times (25\,000 - 10\,000)$
- $= \text{RM}7\,500$

Try 4:

- Salleh is paid RM1000 per month by his employer including 3% commission on all sales over RM20,000. Last month he had total sales of RM26,500. How much was his earnings last month?
- Solution:
- $\text{Earning} = \text{Comm} = 3\% \times \text{sales excess } 20\,000$
- $= 3\% \times (26500 - 20\,000)$
- $= \text{RM195}$

Type 2: Commission with Retainer

- Retainer is a fixed salary or income given by the employer. Commission is now is additional income or extra earning.
- $\text{Earning} = \text{Commission} + \text{Retainer}$

Example 5:

- How much will a salesperson earn if she closes a project worth RM25,000, if her commission is 2% with a RM600 retainer?
- Solution:
- $\text{Earning} = \text{Comm} + \text{retainer}$
- $= 2\% \times 25\,000 + 600$
- $= \text{RM1100}$

Try 5:

- a. Im Aus earns RM500 monthly plus 6% commission of all sales over RM3,500. Last month he made RM18,000 worth of sales. Find his gross earnings.
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- Solution:
- Retainer = 500 , comm = $6\% \times (18000 - 3500)$
- Gross Earnings = Retainer + Commission
- $= 500 + 870 = \mathbf{RM1370}$

Example 6:

- Ain, a salesperson earns RM2150 as her total income last month. If the commission rate is 25% on sales of RM5000, find her retainer.
- Solution:
- $\text{Earning} = 2150$ $\text{comm} = 25\% \times 5\,000$
- $\text{Earnings} = \text{comm} + \text{retainer}$
- $2150 = 0.25 \times 5000 + \text{retainer}$
- $2150 - 1250 = \text{retainer} = \text{RM}900$

Try 6:

- If Azman earns RM2500 including 2% commission on RM22,500 sales, how much is his retainer?
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- Solution:
- Earning = 2500, comm = $2\% \times 22,500$
- Earnings = comm + retainer
- $2500 = 0.02 \times 22500 + \text{retainer}$
- $2500 - 450 = \text{retainer} = \mathbf{RM2050}$

Type 3: A graduate Commission

- Graduate Commission is a series/level of commissions. (more than one comm)

Example 7:

- A second hand car dealer offers its salesperson a commission based on the following scale:
- ~~3% On the first RM 10,000 sales~~
- 4% On the next RM 15,000 sales
- 5% On sales over RM 25,000
- Calculate the commission earned if the total sales made by a salesperson is:
 - (a) RM 8,000
 - (b) RM23 000
 - (c) RM30 000

3% On the first RM 10,000 sales
4% On the next RM 15,000 sales
5% On sales over RM 25,000

- A. 8000
- Less than 10 000 so entitled for the first level 3% only
- Hence, Earning=comm = $3\% \times 8000 = \text{RM}2400$

B. 23 000

- $3\% \times 10\,000 = 300$
- $23\,000 \quad 4\% \times 13\,000 = 520$
- Total Earnings
- $= 300 + 520 = \mathbf{RM820}$

C. 30 000

- $3\% \times 10\,000 = 300$
- 30 000 $4\% \times 15\,000 = 600$
- $5\% \times 5\,000 = 250$
- Total Earnings
- $= 300 + 600 + 250 = \mathbf{RM1150}$

Exercise 1:

- Find the total earning of the following sales for the following graduate commission plus retainer of RM500:
- 20% on the first RM20 000
- 25% on the next sales
- A. sales= RM35 000 (ans: RM8 250)
- B. sales=RM21 000 (Ans: RM4750)
- C. His sales if his earning is RM5000
- (ans: RM22 000)

20% on the first RM20 000

25% on the next sales

retainer = RM500

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- $20\% \times 20\,000 = 4000$
 - A. sales = RM35 000
 - $25\% \times 15\,000 = 3750$
 - Total commission = $4000 + 3750 = 7750$
 - Total income = Comm + retainer
 - $= 7750 + 500$
 - **$= \text{RM}8250$**
 - (ans: RM8 250)

20% on the first RM20 000

25% on the next sales

retainer = RM500

- $20\% \times 20\,000 = 4000$
- B. sales = RM21 000
- $25\% \times 1\,000 = 250$
- Total commission = $4000 + 250 = 4250$
- Total income = Comm + retainer
- $= 4250 + 500$
- **= RM4750**

20% on the first RM20 000

25% on the next sales

retainer = RM500

- $20\% \times 20\,000 = 4000$
- C. sales = RM70 000
- $25\% \times 50\,000 = 12500$
- Total commission = $4000 + 12500 = 16500$
- Total income = Comm + retainer
- $= 16500 + 500$
- **$= \text{RM}17000$**

20% on the first RM20 000

25% on the next sales

retainer = RM500

- $20\% \times 11\,000 = 2200$
- C. sales = RM11 000
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- Total commission = 2200
- Total income = Comm + retainer
- $= 2200 + 500$
- **=RM2700**

20% on the first RM20 000

25% on the next sales

retainer = RM500

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- $20\% \times 20\,000 = 4000$
 - E. sales = RM22 000
 - $25\% \times 2000 = 500$
 - Total commission = 4500
 - Total income = Comm + retainer
 - $= 4500 + 500$
 - $= \text{RM}5000$

Exercise 2:

- Zulhilmi, a salesperson was entitled for 30% commission on sales made. If he managed to make a sales of RM5 000, then how much his salary for last month?
- Solution: $\text{Commission} = 30\% \times 5000 = \text{RM}1500$

Ans: RM1 500

Exercise 3:

- Siti Fatihah, a salesperson was entitled for 30% commission on sales made which excess RM1 000. If she managed to make a sales of RM5 000, then how much her salary for last month?
- Solution: $\text{Commission} = 30\% \times (5000 - 1000) = 1200$

Ans: RM1 200

Exercise 4:

- Intan, a salesperson was entitled for 30% commission on sales made. She also entitled for a retainer of RM1 000. If she made RM7 000 sales last month, find her income.
- Solution: Total income = Comm + retainer
- $$= 30\% \times 7000 + 1000$$
- $$= 2100 + 1000$$
- $$= \text{RM}3\ 100$$

Exercise 5:

- Syazwani, a salesperson was entitled for a graduate commission as following:
- 20% on first RM10 000 sales
- 30% thereafter
- A.If she made RM7000 sales last month, find his commission.
- Solution: $\text{Comm} = 20\% \times 7000 = \text{RM}1400$
- B. If she made RM12 000 sales
- Solution: $20\% \times 10000 + 30\% \times 2000 = \text{RM}2600$
- C. If she made RM34 000 sales?
- Solution: $20\% \times 10000 + 30\% \times 24000 = \text{RM}9200$

Exercise 6:

- Abila, a salesperson entitled for commission of 20% on sales. Calculate the retainer if she received RM2314 as income if she did RM9870 sales last month.
- Total income = comm + retainer
- $2314 = 20\% \times 9870 + \text{retainer}$
- $2314 - 1974 = \text{retainer} = \text{RM}340$
- Ans: RM340

Try by Yourself:

- Haziq Edar Sdn. Bhd. offers its sales team a graduate commission as follows:
- 5% on the first RM100 000 sales
- 7% on the next RM100 000 sales
- 10% on sales exceeding RM200 000
- Find the income earned if the sales is RM175 000 plus retainer of RM500.
- Ans: RM10 750