

# Savings & Investment

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Simple interest Calculation

$$I = Prt$$

I = Interest , P= Principal , t = duration

I = Faedah , P= Principal , t = masa

Compound Interest

$$MV = P\left(1 + \frac{r}{n}\right)^{nt}$$

P= Principal

Principal, r= annual interest , n = number of time interest is compounded in a year, t = number of years

P= Principal , r= faedah tahunan , n = bilangan kali faedah dikompaun setahun, t = bilangan tahun

Question

Given the information below, find the total saving using . **Berdasarkan maklumat dibawah, cari hasil simpanan menggunakan kaedah**

- a) Simple Interest/ **Faedah Mudah**
- b) Compound Interest / **Faedah Kompoun**

Question/ Soalan	Principle/ Principal	Yearly Interest/ Faedah Tahunan	Duration/ Tempoh
1	RM 10 000	3%	5 years

Solution 1 (Simple Interest/Faedah Ringkas)	(Compound Interest/ Faedah Kompoun)
<p>P = RM 10 000                      I = 3%                      t= 5 years                      r = 5</p> <p>Interest/ Faedah</p> $I = Prt$ $I = 10000 \times \frac{3}{100} \times 5$ $I = 1500$ <p>Total = RM 10 000 + RM 1500 = RM11500</p>	<p>P = RM 10 000                      I = 3%                      t= 5 years                      r = 5</p> <p>Compound Interest /Faedah kompoun</p> $MV = P \left(1 + \frac{r}{n}\right)^{nt}$ $MV = 10000 \left(1 + \frac{5}{100}\right)^5$ $MV = 11 592.74$ <p>Total = RM 11592.74</p>

Question 2

Given the information below, find the total saving using . **Berdasarkan maklumat dibawah, cari hasil simpanan menggunakan kaedah**

a) Simple Interest/ **Faedah Mudah**

b) Compound Interest / **Faedah Kompoun**

Question/ Soalan	Principle/ Principal	Yearly Interest/ Faedah Tahunan	Duration/ Tempoh
2	RM 15 000	3%	5 years

Solution 2 (Simple Interest/Faedah Ringkas)	(Compound Interest/ Faedah Kompoun)

Question 3

Given the information below, find the total saving using . **Berdasarkan maklumat dibawah, cari hasil simpanan menggunakan kaedah**

a) Simple Interest/ **Faedah Mudah**

b) Compound Interest / **Faedah Kompoun**

Question/ Soalan	Principle/ Principal	Yearly Interest/ Faedah Tahunan	Duration/ Tempoh
3	RM 5 000	4%	7 years

Solution 3 (Simple Interest/Faedah Ringkas)	(Compound Interest/ Faedah Kompoun)

# INVESTMENT

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Formula 1

$$\text{Total Investment (Jumlah Pelaburan)} = \text{Cost price (kos seunit)} \times \text{number of shares (bil syer)}$$

Formula 2

$$\text{Average Cost (Kos Purata)} = \frac{\text{Total Investment (Jumlah Pelburan)}}{\text{Total Share (Bilangan Syer)}}$$

Question 1

This is the share information of Megasteel Bhd . **Jadual menunjukkan harga syer bagi syarikat Megasteel**

Months/ Bulan	Jan	Feb	March	April	May	June
Price per share / Harga Seunit	RM 1.00	RM 1.20	RM 0.95	RM 1.05	RM 1.30	RM 1.50

James invest RM 4000 monthly into the company by purchasing share. **James melabur RM 4000 sebulan dengan membeli syer syarikat**

Find

- Total Investment from Jan to June/ **Jumlah pelaburan dari Jan ke Jun**
- Total Share purchase/ **Jumlah syer yang dibeli**
- Average Cost of the share /**Kos purata syer**
- If James sold all the share in the 1<sup>st</sup> July for the price of RM 1.45. How much can he profit.  
**Jika James kesemua syer pada 1 July pada harga RM 1.45. Berapakah keuntungannya**

Solution

a)  $RM\ 4000 \times 6 = RM\ 24\ 000$

b)

Months/ Bulan	Jan	Feb	March	April	May	June
Price per share / Harga Seunit	RM 1.00	RM 1.20	RM 0.95	RM 1.05	RM 1.30	RM 1.50
Number of share  $\frac{\text{Monthly Invest}}{\text{Share Price}}$	4000 Units	3333 Units	4211 Units	3810 Units	3077 Units	2667 Units

Total Units : 4000 + 3333 + 4211 + 3810 + 3077 + 2667= 21098 units

c)

$$\begin{aligned} \text{Average Cost (Kos Purata)} &= \frac{\text{Total Investment (Jumlah Pelburan)}}{\text{Total Share (Bilangan Syer)}} \\ &= \frac{\text{RM 24 000}}{21098} = \text{RM 1.14} \end{aligned}$$

d) When he sold all the share for RM 1.45. His profits are

$$\text{RM 1.45} - \text{RM 1.14} = \text{RM 0.31 per unit}$$

$$\text{RM 0.31} \times 21098 = \text{RM 6540.38}$$

## Question 2

This is the share information of Polysteel Bhd . Jadual menunjukkan harga syer bagi syarikat Megasteel

Months/ Bulan	Jan	Feb	March	April	May	June
Price per share / Harga Seunit	RM 3.00	RM 4.20	RM 1.95	RM 1.55	RM 2.30	RM 3.50

James invest RM 40000 monthly by purchasingshare. James melabur RM 40000 sebulan dengan membeli syer syarikat

Find

- Total Investment from Jan to June/ Jumlah pelaburan dari Jan ke Jun
- Total Share purchase/ Jumlah syer yang dibeli
- Average Cost of the share /Kos purata syer
- If James sold all the shares in the 1<sup>st</sup> July for the price of RM 3.01. How much can he profit.  
Jika James kesemua syer pada 1 July pada harga RM 3.01. Berapakah keuntungannya

Please provide your answers here. Please include a table

Question 3

This is the share information of Polysteel Bhd . **Jadual menunjukkan harga syer bagi syarikat Megasteel**

Months/ Bulan	Jan	Feb	March	April	May	June
Price per share / Harga Seunit	RM 1.00	RM 1.20	RM 1.15	RM 1.05	RM 1.02	RM 1.04

James invest RM 2000 monthly the company buy purchasing share. **James melabur RM 2000 sebulan dengan membeli syer syarikat**

Find

- Total Investment from Jan to June/ **Jumlah pelaburan dari Jan ke Jun**
- Total Shares purchase/ **Jumlah syer yang dibeli**
- Average Cost of the share /**Kos purata syer**
- If James sold all the shares in the 1<sup>st</sup> July for the price of RM 1.21. How much can he profit.  
**Jika James kesemua syer pada 1 July pada harga RM 3.01. Berapakah keuntungannya**

Please provide your answers here. Please include a table



## Housing Investment / Business Investment

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$$\text{Return of Investment(ROI)} = \frac{\text{Total Return}}{\text{Initial Cost Price}} \times 100\%$$

$$\text{Nilai Pulangan Modal(ROI)} = \frac{\text{Jumlah Pulangan}}{\text{Harga Kos}} \times 100\%$$

### Question 1

James bought a house at the price of RM 100 000. He paid 10% as down payment and secure a loan of RM 90 000. He sold the house for RM 160 000 after 4 years. In the last 4 years he rented the house for RM 300/monthly. The cost of repair before selling the house is RM 10 000 before she managed to sell it.

James membeli sebuah rumah dengan harga RM 100 000. Dia menjelaskan 10% sebagai wang pendahuluan dan mendapatkan pinjaman RM 90.00. James menjual rumahnya selepas 4 tahun dengan harga RM 160 000. Pada 4 tahun yang pertama dia menyewa rumahnya dengan harga RM 300 sebulan. Sebelum menjual rumahnya James membelanjakan RM 10 000 untuk memperbaiki peralatan rumahnya

### Find

- Initial investment / Pelaburan awal
- Capital Gain / Keuntungan Modal
- Rental Collected
- Total Return / Jumlah Pulangan
- Find the ROI

### Solution

a) Initial Investment = RM 100 000

b) Capital Gain = RM 160 000 – RM 90 000 – RM 10 000 - RM 10000 = RM 50 000

c) Rental collected = RM 300 x 12 x 4 = RM 14 400

d) Total Return = RM 50 000 + RM 14 400 = RM 64 400

e)

$$\text{Return of Investment(ROI)} = \frac{\text{RM 64400}}{\text{RM 100 000}} \times 100\% = 64.4\%$$

Question 2

James bought a house at the price of RM 400 000. He paid 50% as down payment and secure a loan of RM 500 000. She renovated the kitchen for RM 30 000. She sold the house for RM 550 000 after 5 years. In the last 5 years he rented the house for RM 600/monthly. The cost of repair before selling the house is RM 40 000 before she managed to sell it.

Find

- a) Initial investment / **Pelaburan awal**
- b) Capital Gain / **Keuntungan Modal**
- c) Rental Collected
- d) Total Return / **Jumlah Pulangan**
- e) Find the ROI

Solution here

# Credit Card / Credit Terms

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There are 3 portions here

- a) Amount you paid / **Jumlah Perlu bayar**
- b) Interest on Credit Card/ **Charge tambahan**
- c) Late payment charges / **Kadar Bunga lewat bayaran**

Question

**2<sup>nd</sup> January :**

*James would like to buy an Ipad with RM 2000. The credit card charges 1% for every transaction.*

*James ingin membeli Ipad dengan harga RM 2000. Pembekal kad kredit dengan nilai tambahan ialah 1% bagi setiap transaksi.*

Find

- a) The amount charge in the credit card statement for the month of January ? **Jumlah yang perlu dibayar bagi penyata kad kredit bagi bulan Januari**
- b) If James paid miss his payment for 20 days. The credit card provider charges interest of 10% per year with on his principal. How must he pay for the February statement? **Jika James terlupa membuat bayaran selama 20 hari dan pembekal kad kredit mengenakan kadar bunga 10% setahun keatas prinsipal, berapakah bayaran terkini pada penyata bulan Febuari**

Solution:

a)

Credit Card Charges 1% = RM 2000 x 1% = RM 20

Total need to pay for the January statement is = RM 2000 + RM 20 = RM 2020

b)

Credit Card Late Payment 10% per year

$$\text{Monthly} = \frac{10\%}{365} = 0.027\% \text{ daily}$$

Credit Card Interest = 20 days x  $\frac{0.027}{100}$  x RM 2020 = RM 10.98

February statement = RM 10.98 + RM 2020 = RM 2030.98

Question

**3<sup>rd</sup> January :**

*James would like to buy an iPhone with RM 4000. The credit card charges 1% for every transaction.*

*James ingin membeli iPhone dengan harga RM 5000. Pembekal kad kredit dengan nilai tambahan ialah 1% bagi setiap transaksi.*

Find

- a) The amount charge in the credit card statement for the month of January ? **Jumlah yang perlu dibayar bagi penyata kad kredit bagi bulan Januari**
- b) If James paid miss his payment for 60days. The credit card provider charges interest of 10% per year with on his principal. How must he pay for the February statement? **Jika James terlupa membuat bayaran selama 60 hari dan pembekal kad kredit mengenakan kadar bunga 10% setahun keatas prinsipal, berapakah bayaran terkini pada penyata bulan Febuari**

# Loan

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Two types of loan.

- a) Simple Interest / Faedah Sama Rata
  - a. Personal Loan
  - b. Buying Goods
- b) Reducing Balance Rate/ Faedah atas baki
  - a. Housing Loan
  - b. Business Loan

$$\text{Simple interest, } A = P + Prt$$

## Question

Jeremy plan to buy a car worth RM 40 000. The bank loan him the money with interest of 10% yearly for 2 years. **Jeeremy ingin membeli sebuah kereta dengan harga RM 40 000. Bank menawarkan faedah 10% setahun bagi pinjaman 2 tahun**

Find

- a) Total Interest he has to pay for 2 years . **Jumlah bunga atau faedah bagi 2 tahun**
- b) How much he needs to pay monthly. **Jumlah perlu dibayar setiap bulan**

**Question**

Ah Cong need a loan worth RM 85 000. The bank loan him the money with interest of 15% yearly for 3 years. Ah Cong memerlukan pinjaman RM 85000. Bank menawarkan faedah 15% setahun bagi pinjaman 3 tahun.

Find

- a) Total Interest he has to pay for 3 years . Jumlah bunga atau faedah bagi 3 tahun
- b) How much he needs to pay monthly. Jumlah perlu dibayar setiap bulan