



Erasmus+



digitally innovative

unique ones

If I put 1000 TL into a high interest savings account that monthly earning 4% compounds interest , how much would I have after 1 year?

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- Total money is 1480 TL
- It is more than 1600 TL

How to calculate compound interest?

At the end of the 1.month;

$$1.000 \times \%4 = 40$$

$$1.000 + 40 = 1040 \text{ TL}$$

At the end of the 2.month;

$$1.040 \times \%4 = 41,60$$

$$1.040 + 41,60 = 1081,60 \text{ TL}$$

At the end of the 3.month;

$$1.081,60 \times \%4 = 43,26$$

$$1.081,6 + 43,26 = 1124,86 \text{ TL}$$

$$\dots\dots\dots = 1,601.03$$

Result

- The interest to be paid after the coupon is 601,03 and the value of the investment at the end of the period is TL 1,601,03. The principal of TL 1,000 is calculated monthly with %4 monthly compound interest and the interest is calculated with 12 months maturity.
- Current Value (Principal): 1,000.00
- Interest Amount: 601.03
- Future Value (Principal + Interest Amount): 1,601.03

If you keep 10.000 Turkish Liras under your bed now, what would it be worth in 5 years, taking inflation into account?

- Less than 10.000 TL buying power
- Inflation increases the cost of living, meaning on average, you will need more money in the future to buy the same goods and services you buy today. Therefore your money will be worth less in the future than it is today.
- To maintain your current buying power, you will need to invest your money somewhere that will earn you at least as much as the rate of inflation.

- We need math to calculate it of course .

Mehmet is planning a holiday that will cost around 5,000 TL. He has a new credit card with a 5,000 TL limit. Should Mehmet:

- Save for her holiday even if it means taking it a bit later
- Credit cards charge a high interest rate. Usually it is better saving money for these things like a holiday. It will be cheaper in the long run as you won't pay interest on it and you will enjoy it more knowing you worked for it.
- Mehmet should pay with credit card by installment payment according to his budget.

That is math calculation too.

Mehmet must compare the holiday expenses (done by credit card) by using math.

Ayşe lives 25 kilometres far away from work and is thinking about buying a car. She doesn't like public transport and it will take her shorter time to get to work by car as it does by train. It costs for Ayşe 80 TL in a week on the train and she estimates around 100 TL money collecting a week to purchase a car.

How much money would Ayşe save each year if she continues to go by train to work instead of buying a car and driving?

Ayşe lives 25 kilometres far away from work and is thinking about buying a car. She doesn't like public transport and it will take her shorter time to get to work by car as it does by train. It costs for Ayşe 80 TL in a week on the train and she estimates around 100 TL money collecting a week to purchase a car.

How much money would Ayşe save each year if she continues to go by train to work instead of buying a car and driving?

- 240 TL
- 500 TL
- More than 500 TL

Why?

- Because she needs petrol tooo!!!

- Budget management needs mathematical calculation.

**THANKS FOR
YOUR
ATTENTION !!**

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