

NICKS & TRICKS

GUIDE TO JC MATHS

Financial Maths

Always Remember!

1. Currency Conversion

€1 = \$1.50

Means for every euro you get \$1.50
To exchange from € to \$ here **multiply by 1.5**
To exchange from \$ to € here **divide by 1.5**

Log tables – page 30 & 31!



Find all Financial Maths Formulas

2. Tax

Income Tax and USC (Universal Social Charge)

- Standard Tax = Standard Rate cutoff × Standard Rate
- Higher Tax = Income above cutoff × Higher Rate
- Gross Tax = Standard Tax + Higher Tax
- Tax Payable = Gross Tax - Tax Credit
- Net Income = Gross Income - Tax Payable

Other Deductions may have to be subtracted from net income.

- PRSI
- Universal Social Charge
- Health Insurance etc

3. Profit

% Profit (Mark-Up)

This is the profit as a percentage of the cost price.

$$\% \text{ Profit} = \frac{\text{Profit/Loss}}{\text{Cost Price}} \times 100$$

% Profit (Margin)

This is the profit as a percentage of the selling price.

$$\% \text{ Profit} = \frac{\text{Profit}}{\text{Selling Price}} \times 100$$

Worked Example

Question 1 a:

The value of one euro against other currencies on a particular day is shown in the table below. Mary was going to America for a few months. She changed €1200 into US Dollars using the exchange rate in the table.

| Currency | Rate (€) |
|------------------|----------|
| US Dollar | 1.4045 |
| Pound Sterling | 0.87315 |
| Lithuanian Litas | 3.4528 |
| Latvian Lats | 0.7093 |
| Polish Zloty | 4.0440 |

i) How many dollars should she receive at this exchange rate?

$$\cancel{\text{€ } 1 = \$ 1.4045}$$

Cross multiply

$$\text{€ } 1200 = \$ x$$

$$x = \text{€}1200 \times 1.4045$$

$$= \$ 1685.40$$

Continuing from above – 15 mins – Time yourself!

Question 1 b:

The bank charged 3% commission on the transaction.

How many dollars did she receive?

Question 1 c:

On returning to Ireland Mary had \$3060. She changed this amount into euro.

The bank again charged her 3% commission on the transaction. She received €2047.

Find the exchange rate on that day, correct to two decimal places.