



AQA GCSE Maths: Higher



Your notes

Exchange Rates & Best Buys

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Your notes

Exchange Rates

Exchange Rates

Exchange rates are used to **compare** and **convert** between **different currencies**.

How do I convert between currencies?

- Start by writing the **exchange rate**
 - £1.00 (GBP) = €1.17 (EUR)
- To convert **from GBP to EUR**, **multiply** by 1.17
 - Because $1.00 \times 1.17 = 1.17$
- To convert **from EUR to GBP**, **divide** by 1.17
 - Because $1.17 \div 1.17 = 1.00$
- To find £28 in Euros
 - $28 \times 1.17 = €32.76$
- To find €75 in Pounds
 - $75 \div 1.17 = £64.10$ (to the nearest penny)



Worked Example

On a particular day, the exchange rate from US Dollars to Japanese Yen is:

$$1 \text{ US Dollar} = 155.62 \text{ Japanese Yen}$$

and the exchange rate from Australian Dollars to Japanese Yen is:

$$1 \text{ Australian Dollar} = 102.09 \text{ Japanese Yen}$$

An item costs **40 US Dollars**.

Find the cost of the item in **Australian Dollars**.

The first exchange rate is $1 \text{ US Dollar} = 155.62 \text{ Japanese Yen}$

So to convert from US Dollars to Japanese Yen, multiply by 155.62

$$40 \times 155.62 = 6224.80 \text{ Japanese Yen}$$

The second exchange rate is 1 Australian Dollar = 102.09 Japanese Yen
So to convert from Japanese Yen to Australian Dollars, divide by 102.09

$$6224.80 \div 102.09 = 60.9736... \text{ Australian Dollars}$$

Round to 2 decimal places as we are dealing with money

60.97 Australian Dollars



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Best Buys

Best Buys

If there is more than one deal on offer, how do I work out which deal is best?

- Find the price of **1 item** (by **dividing** the number of items and total price by the same **scale factor**)
 - E.g. If 3 tins cost £1.20 then 1 tin costs 40p (by dividing both quantities by 3)
- Compare** the prices of 1 item from each shop / deal to see which is **cheaper**
 - The cheaper deal is the **better value for money**
 - E.g. 1 tin costs 40p from shop A and 45p from shop B
 - 1 tin at shop A is cheaper than at shop B
 - Shop A is therefore the better value for money
- For more complicated deals, write down **each line** of working clearly



Worked Example

Two deals for buying caps are given below:

3 caps for £22.50 from Baseball World

5 caps for £36 from Head Hut

At which shop are the caps better value?

You must show your working.

Find the cost of 1 cap from Baseball World (by dividing £22.50 by 3)

$$22.50 \div 3 = £7.50 \text{ for 1 cap from Baseball World}$$

Find the cost of 1 cap from Head Hut (by dividing 36 by 5)

$$36 \div 5 = £7.20 \text{ for 1 cap from Head Hut}$$

Compare the price of 1 cap from each shop to see which is cheapest

£7.20 is cheaper than £7.50

Write down, with reason, the shop with better value

1 cap from Head Hut costs £7.20 and 1 cap from Baseball World costs £7.50
£7.20 is cheaper than £7.50 so Head Hut is better value



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