Example 22

A bank exchanges 1 British pound (GBP) for 1.65 Australian dollars (AUD). Convert:

a 40 GBP to AUD   **b** 500 AUD to GBP.

a   1 GBP $= 1.65$ AUD
  $\therefore$ 40 GBP $= 40 \times 1.65$ AUD   {multiplying by 40}
  $\therefore$ 40 GBP $= 66$ AUD

b   1.65 AUD $= 1$ GBP

    $\therefore$ 1 AUD $= \dfrac{1}{1.65}$ GBP   {dividing by 1.65}

  $\therefore$ 500 AUD $= 500 \times \dfrac{1}{1.65}$ GBP   {multiplying by 500}

  $\therefore$ 500 AUD ≈ 303 GBP

Example 23

The table alongside shows the transfer rates between US dollars (USD), Swiss francs (CHF), and British pounds (GBP).

	USD	GBP	CHF
USD	1	0.640	0.91
GBP	1.56	1	1.43
CHF	1.10	0.70	1

a Write down the exchange rate from:
  i CHF to USD   **ii** USD to CHF.
b Convert:
  i 3000 USD to GBP   **ii** 10 000 francs to pounds.

a **i** 1 CHF $= 1.10$ USD   **ii** 1 USD $= 0.91$ CHF

b **i**   1 USD $= 0.640$ GBP   **ii**   1 CHF $= 0.7$ GBP
      $\therefore$ 3000 USD $= 3000 \times 0.640$ GBP $\therefore$ 10 000 CHF $= 10\,000 \times 0.7$ GBP
      $\therefore$ 3000 USD $= 1920$ GBP $\therefore$ 10 000 CHF $= 7000$ GBP

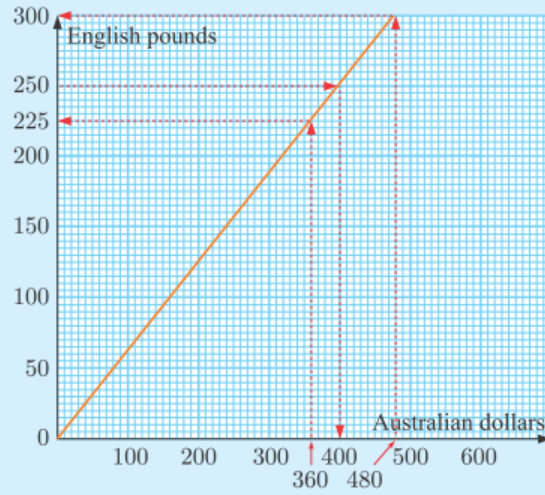**Example 24**   ◆)) **Self Tutor**

The graph alongside shows the relationship between Australian dollars and Great Britain pounds on a particular day. Find:

a the number of AUD in 250 GBP

b the number of GBP in 480 AUD

c whether a person with 360 AUD could afford to buy an item valued at 240 GBP.
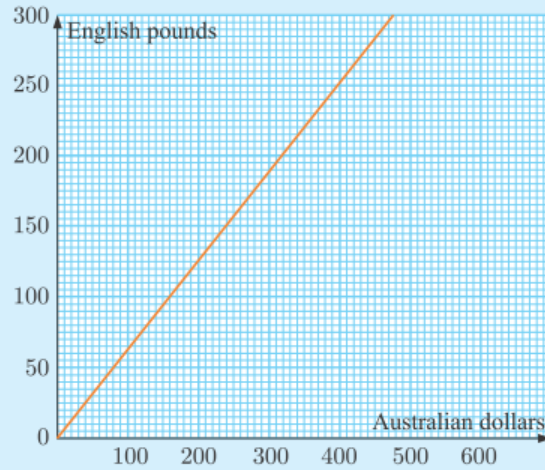
a 250 GBP is equivalent to 400 AUD.

b 480 AUD is equivalent to 300 GBP.

c 360 AUD is equivalent to 225 GBP.

∴ the person cannot afford to buy the item.

Example 26

Use the currency conversion table above to perform the following conversions:

a Convert 400 USD into euros.

b How much does it cost in US dollars to buy 5000 yen?

c How many US dollars can you buy for 2000 Swedish kronor?

a Euros are sold at the rate

$$1 \text{ USD} = 0.7354 \text{ EUR}$$

$$\therefore \quad 400 \text{ USD} = 400 \times 0.7354 \text{ EUR}$$

$$= 294.16 \text{ EUR}$$

b The currency broker sells yen at the rate

$$1 \text{ USD} = 76.256 \text{ JPY}$$

$$\therefore \quad \frac{1}{76.256} \text{ USD} = 1 \text{ JPY}$$

$$\therefore \quad 5000 \times \frac{1}{76.256} \text{ USD} = 5000 \text{ JPY}$$

$$\therefore \quad 5000 \text{ JPY} = 65.57 \text{ USD}$$

c The currency broker buys kronor at the rate

$$1 \text{ USD} = 6.9323 \text{ SEK}$$

$$\therefore \quad \frac{1}{6.9323} \text{ USD} = 1 \text{ SEK}$$

$$\therefore \quad 2000 \times \frac{1}{6.9323} \text{ USD} = 2000 \text{ SEK}$$

$$\therefore \quad 2000 \text{ SEK} = 288.50 \text{ USD}$$