

- 1 Alphonse, his wife and child fly from Madrid to the Olympic Games in Beijing.
The adult plane fare is 450 euros.
The child fare is 68% of the adult fare.

(a) Show that the total plane fare for the family is 1206 euros. Show all your working clearly.

Answer (a)

$$\begin{aligned}\text{Child fare} &= \frac{68}{100} \times \text{€}450 \\ &= \text{€}306\end{aligned}$$

$$\begin{aligned}\text{Total plane fare} &= 2 \times \text{€}450 + \text{€}306 \\ &= \text{€}900 + \text{€}306 \\ &= \text{€}1206\end{aligned}$$

[3]

(b) The ratio of the money spent on plane fares : accommodation : tickets = 6 : 5 : 3.

Calculate the **total** cost.

$$\begin{aligned}\text{Total cost} &= \frac{6+5+3}{6} \times \text{€}1206 \\ &= \frac{14}{6} \times \text{€}1206 \\ &= \text{€}2814\end{aligned}$$

Answer(b) 2814 euros [3]

(c) Alphonse changes 500 euros into Chinese Yuan at a rate of 1 euro = 9.91 Chinese Yuan.

How many Chinese Yuan does he receive?

$$\begin{aligned}\text{€}1 &= 9.91 \text{ Yuan} & x &= \frac{\text{€}500}{\text{€}1} \times 9.91 \text{ Yuan} \\ \text{€}500 &= x & &= 4955 \text{ Yuan}\end{aligned}$$

Answer(c) 4955 Yuan [2]

(d) Their plane leaves Madrid at 05 45. The journey takes 11 hours 35 minutes.
Beijing time is 6 hours ahead of Madrid time.

Find the time in Beijing when they arrive.

$$\begin{array}{rcl}05.45 & & 17.20 \\ 11.35 + & & 06.00 + \\ \hline 16.80 & & 23.20 \\ = 17.20 & & \end{array}$$

Answer(d) 23.20 [2]