

1 A football club sells tickets at different prices dependent on age group.

(a) (i) At one game, the club sold tickets in the ratio

$$\text{under 18} : 18 \text{ to } 60 : \text{over } 60 = 2 : 7 : 3.$$

There were 6100 tickets sold for people aged under 18.

Calculate the **total** number of tickets sold for the game.

$$\frac{2+7+3}{2} \times 6100 = \frac{12}{2} \times 6100$$

$$= 36600$$

36600 [3]

(ii) Calculate the percentage of tickets sold for people aged under 18.

$$\frac{2}{2+7+3} \times 100\% = \frac{2}{12} \times 100\%$$

$$= \frac{200}{12}\%$$

$$= 16.6666... \% \approx 16.7\%$$

16.7 % [1]

(b) The table shows the football ticket prices for the different age groups.

Age	Price
Under 18	\$15
18 to 60	\$35
Over 60	\$18

At a **different** game there were 42 600 tickets sold.

- 14% were sold to people aged under 18
- $\frac{2}{3}$ of the tickets were sold to people aged 18 to 60
- The remainder were sold to people aged over 60

Calculate the total amount the football club receives from ticket sales for this game.

$$\frac{14}{100} \times 42600 = 5964$$

$$5964 \times \$15 = \$89460$$

$$\frac{2}{3} \times 42600 = 28400$$

$$28400 \times \$35 = \$994000$$

$$42600 - 5964 - 28400 = 8236$$

$$8236 \times \$18 = \$148248 +$$

$$\text{Total} = \$1231708$$

\$ 1231708 [5]