

1 A tennis club has 560 members.

(a) The ratio men : women : children = 5 : 6 : 3.

(i) Show that the club has 240 women members.

Answer(a)(i)

$$\frac{6}{5+6+3} \times 560 = \frac{6}{14} \times 560$$

$$= 240$$

[2]

(ii) How many members are children?

$$\frac{3}{5+6+3} \times 560 = \frac{3}{14} \times 560$$

$$= 120$$

Answer(a)(ii) 120 [1]

(b) $\frac{5}{8}$ of the 240 women members play in a tournament.

How many women members do **not** play in the tournament?

$$\frac{5}{8} \times 240 = 150$$

$$240 - 150 = 90$$

Answer(b) 90 [2]

(c) The annual membership fee in 2013 is \$198 for each adult and \$75 for each child.

(i) Calculate the total amount the 560 members pay in 2013.

$$\text{Adult} = 560 - 120$$

$$= 440$$

$$440 \times \$198 + 120 \times \$75 = 87120 + 9000$$

$$= 96120$$

Answer(c)(i) \$ 96120 [2]

(ii) The adult fee of \$198 in 2013 is 5.6% more than the fee in 2012.

Calculate the adult fee in 2012.

2012	2013
100%	105.6%
x	\$198

$$x = \frac{100}{105.6} \times \$198$$

$$= \$187.50$$

Answer(c)(ii) \$ 187.50 [3]