

- 1 (a) Last year a golf club charged \$1650 for a family membership.  
This year the cost increased by 12%.

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Calculate the cost of a family membership this year.

Last year \$1650  
Increase in cost = 12%  
∴ New Cost =  $1650 + \frac{12}{100}(1650)$   
 $= 1848$

Answer(a) \$ ..... 1848 ..... [2]

- (b) The golf club runs a competition.  
The total prize money is shared in the ratio 1st prize : 2nd prize = 9 : 5.  
The 1st prize is \$500 more than the 2nd prize.

(i) Calculate the total prize money for the competition.

1st Prize Money :  $\frac{9}{14}(x) = \frac{5}{14}(x) + 500 \Rightarrow 4x = 7000$   
 $\Rightarrow x = \frac{7000}{4} = 1750$

Answer(b)(i) \$ ..... 1750 ..... [2]

(ii) What percentage of the total prize money is given as the 1st prize?

$\frac{\frac{9}{14}(x)}{x} \times 100$   
 $\Rightarrow \left[ \frac{9}{14}(1750) \div 1750 \right] \times 100$  Answer(b)(ii) ..... 64.3 ..... % [1]

- (c) For the members of the golf club the ratio men : children = 11 : 2.  
The ratio women : children = 10 : 3.

(i) Find the ratio men : women.

Ratio of Men : Women  
33 : 20

Men : children      Women : Children  
33 : 6      20 : 6      Answer(c)(i) ..... 33 : 20 ..... [2]

∴  $\frac{M}{C} : \frac{W}{C} \Rightarrow \frac{33}{6} : \frac{20}{6} \Rightarrow 33 : 20$

- (ii) The golf club has 24 members who are children.

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Find the total number of members.

$$\left( \frac{6}{6+20+33} \right) \times x = 24$$

$$\Rightarrow \frac{6x}{59} = 24$$

$$\Rightarrow x = \frac{24 \times 59}{6} = 236$$

Answer(c)(ii) ..... 236 [3]

- (d) The club shop sold a box of golf balls for \$20.40.  
The shop made a profit of 20% on the cost price.

Calculate the cost price of the golf balls.

$$SP = \$20.40$$

$$P = 20\%$$

$$CP = x$$

$$P\% = \frac{SP - CP}{CP} \times 100$$

$$20 = \frac{20.40 - x}{x} \times 100$$

$$\Rightarrow \frac{20x}{100} + x = 20.40$$

$$\Rightarrow \frac{120x}{100} = 20.40$$

$$\Rightarrow x = 17$$

Answer(d) \$ ..... 17 [3]