

6 In 2018, a badminton club had 460 members.

Of these members,

A were younger than 30

B were aged between 30 and 60 inclusive

C were older than 60

Given that $A : B : C = 2 : 5 : 3$

(a) find the total number of members who were aged 30 or older in 2018

(2)

In 2018, the annual membership fee for each member who was older than 60 was \$65

The annual membership fee for each other member was \$135

(b) Calculate the total amount, in \$, that the 460 members paid in annual membership fees in 2018

(2)

The annual membership fee for each member who was older than 60 in 2019 was 4% greater than the annual membership fee for each member who was older than 60 in 2018

(c) Calculate the annual membership fee for each member who was older than 60 in 2019

(2)

The badminton club buys 12 shuttlecocks for a total cost of \$5.10

The club then sells the shuttlecocks to members for \$0.50 each.

(d) Calculate the percentage profit, to 3 significant figures, made by the club on each shuttlecock that was sold.

(2)

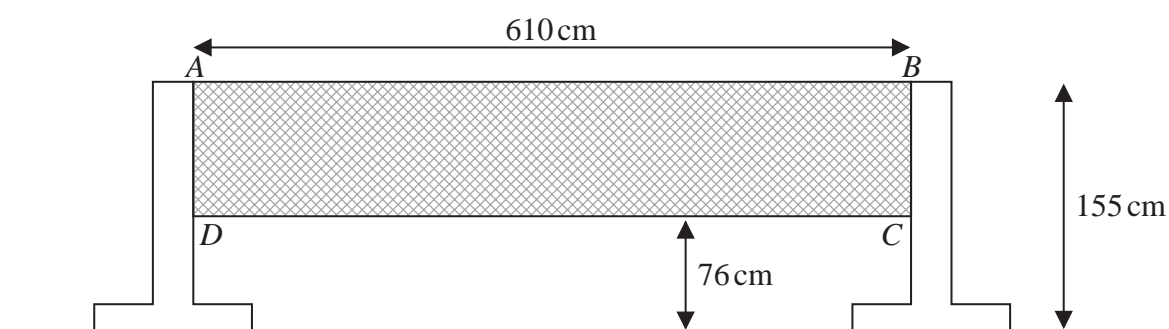


Figure 2

Figure 2 shows a badminton net $ABCD$ and two supports for the net. The badminton net is shaded in the diagram.

Figure 2 gives information about the dimensions of the badminton net. Each measurement is given to the nearest cm.

(e) Calculate the upper bound, in cm^2 , of the area of the net $ABCD$

(3)



DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

Question 6 continued

Handwriting practice area with horizontal dotted lines.



Question 6 continued

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA



DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

Question 6 continued

Handwriting practice area with horizontal dotted lines.

(Total for Question 6 is 11 marks)



P 6 9 3 1 0 A 0 1 3 3 2