(a) Sully's back garden is in the shape of the rectangle $A B C D$ shown in the scaled diagram below. In the diagram 1 cm represents 1 m .
[AD] is the back wall of the house.
There is a tree ( T ) near the end of the garden, as shown in the diagram.
Sully wants to put up a bird table in the garden. The table has to be at least 3 m from the house and at least 4 m from the tree. Using your ruler and compass, draw and shade in the region of the garden where the bird table could be placed.


Scale: 1 cm represents 1 m .

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(b) A square board with a circular disc drawn on it is shown in the diagram below. The square has a side length of 20 cm .

(i) Find, in $\mathrm{cm}^{2}$, the area of the square.

(ii) Find the area of the disc. Give your answer correct to the nearest $\mathrm{cm}^{2}$.

(iii) Write the area of the disc as a percentage of the total area of the square.


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