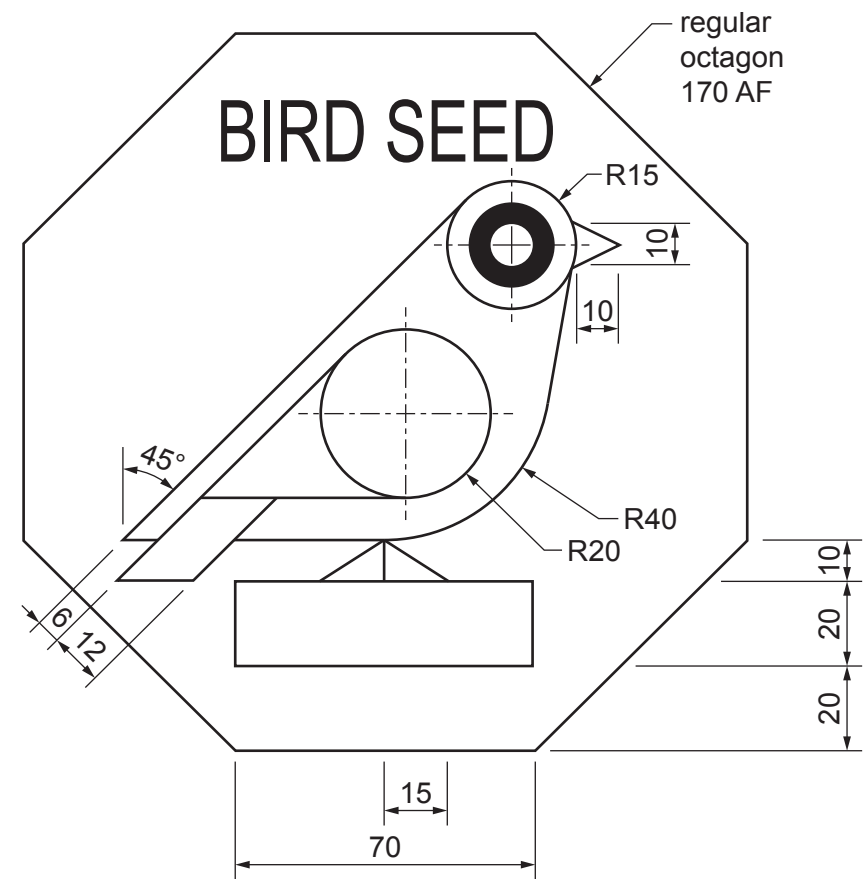


Section A
Answer **all** questions in this section.

A1 The image from a box of bird seed is shown below.



BIRD SEED

Complete the full-size drawing of the image by adding:

- (a) the body and head of the bird [3]
- (b) the beak [2]
- (c) the wing [3]
- (d) the feet and branch [2]
- (e) the outer octagon. [3]

A2 The image will be printed onto cardboard boxes of bird seed.

The boxes of bird seed will be produced in quantities of 5000.

(a) Name a suitable method of printing the image onto the cardboard boxes.

..... [1]

(b) State **one** suitable method of cutting and creasing the cardboard developments (nets) that will be made into the cardboard boxes.

..... [1]

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1 hour

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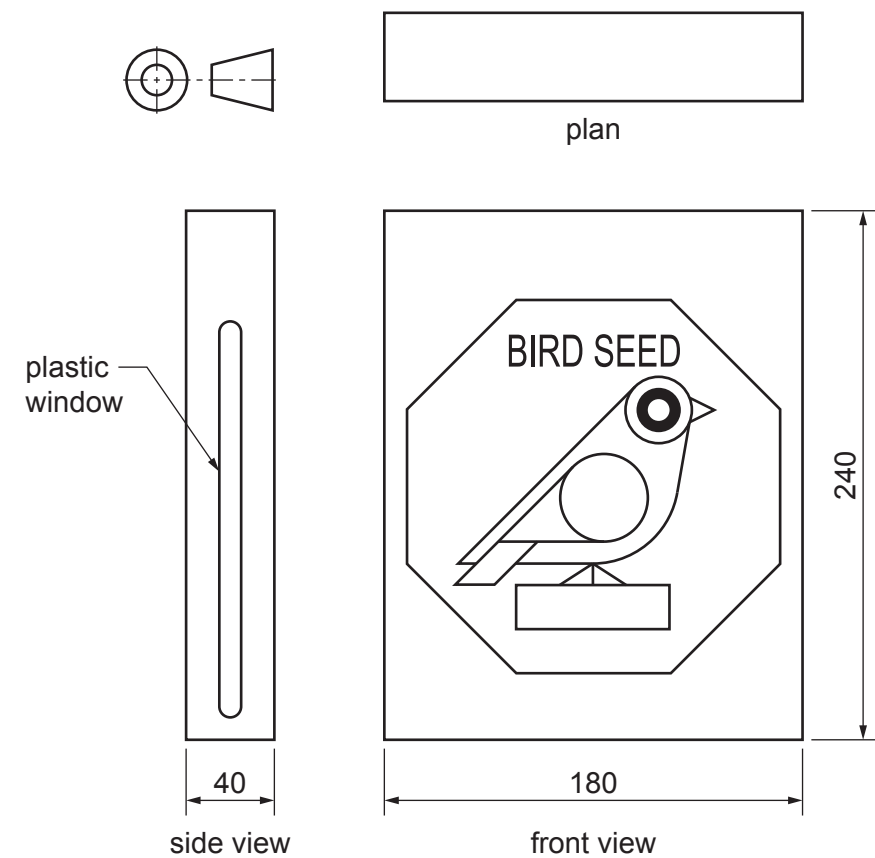


Centre Number Candidate Number

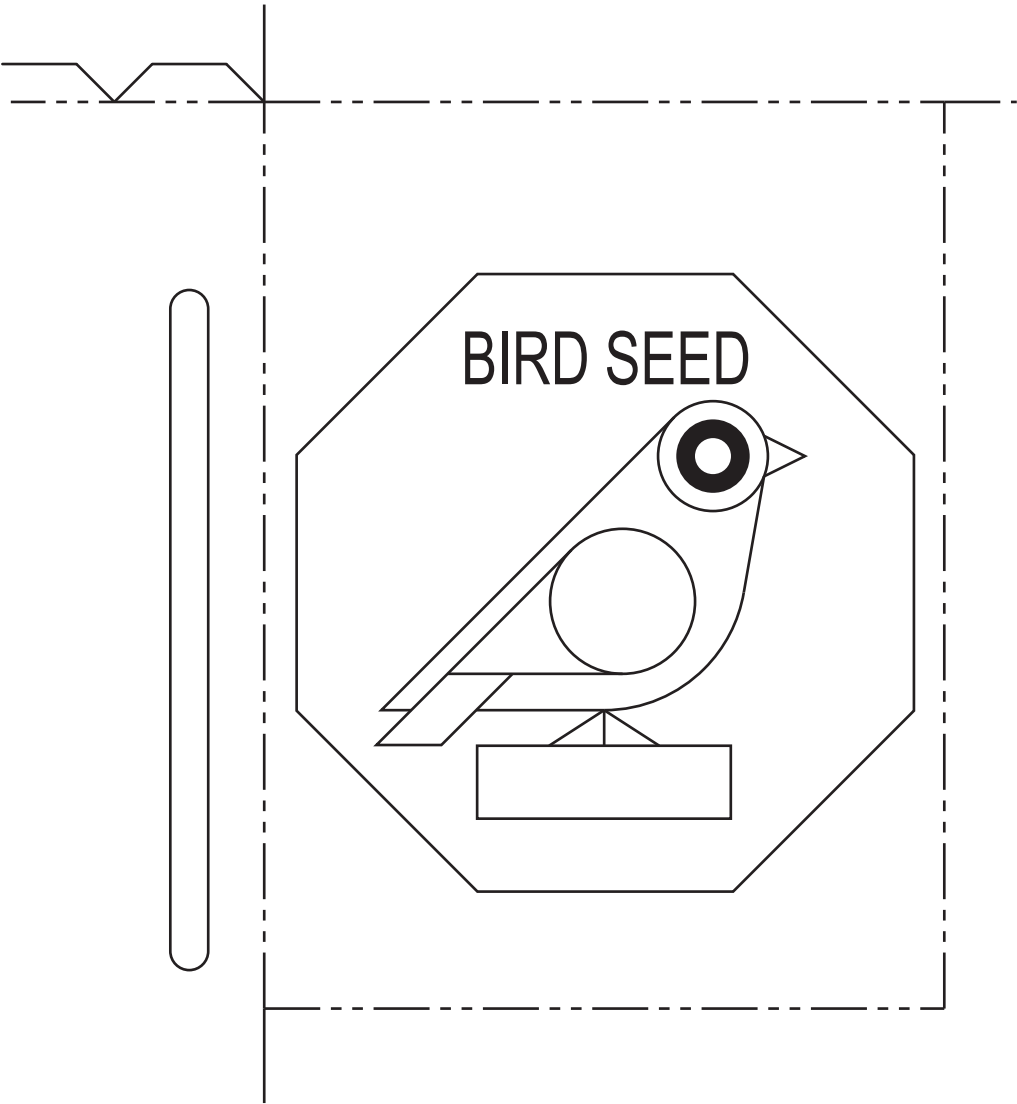
Candidate Name [Turn over]

For
Examiner's
use

A3 Orthographic views of the bird seed box are shown below.



(a) Complete the development (net) of the bird seed box to a scale of 1:2. [7]



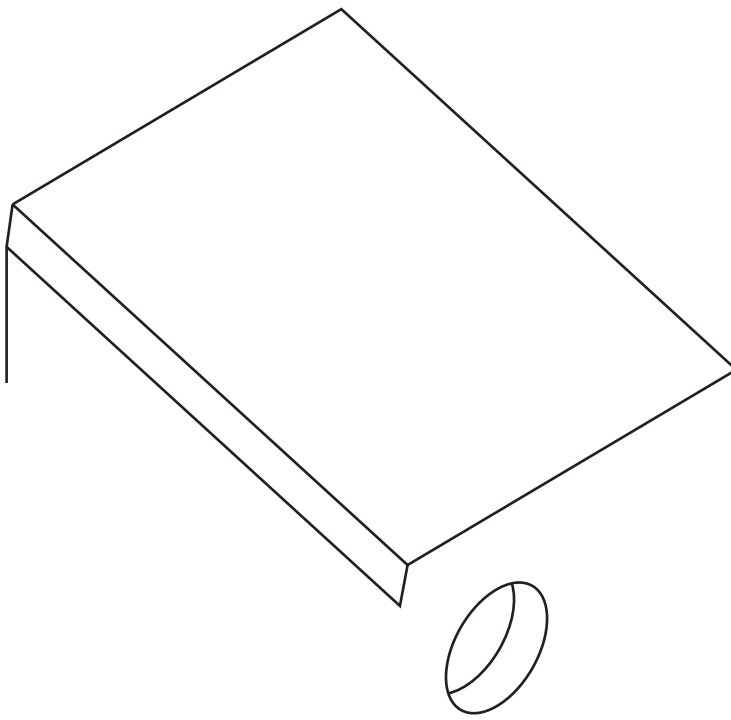
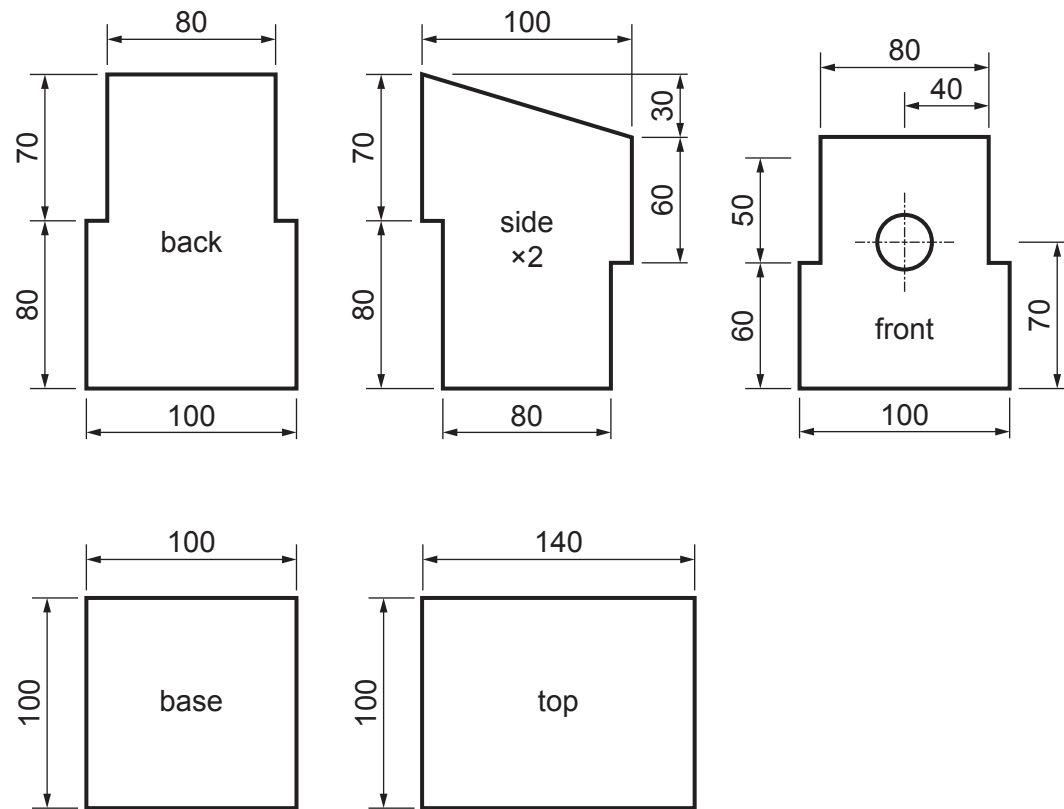
development (net)

(b) The box of bird seed has a plastic window on the side made from clear vinyl sheet.
Sketch a method of attaching the plastic window to the box. [3]

Section B
Answer **one** question, **either** Question **B4** or **B5**, from this section.

B4 Parts of a bird box are shown below.

The bird box is made from 10mm hardwood.



isometric view

(a) Complete the isometric view of the assembled bird box to a scale of 1:2. [11]

(b) A model of the bird box will be made from 5 mm thick foamboard. The parts will be cut out using a laser cutter.

(i) Describe **one** advantage of using a laser cutter to cut out the parts of the model compared to producing them by hand.

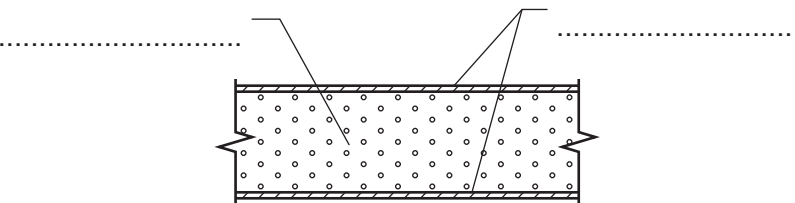
.....
.....
..... [2]

(ii) State **one** safety precaution that should be taken when cutting the foamboard on the laser cutter.

.....
..... [1]

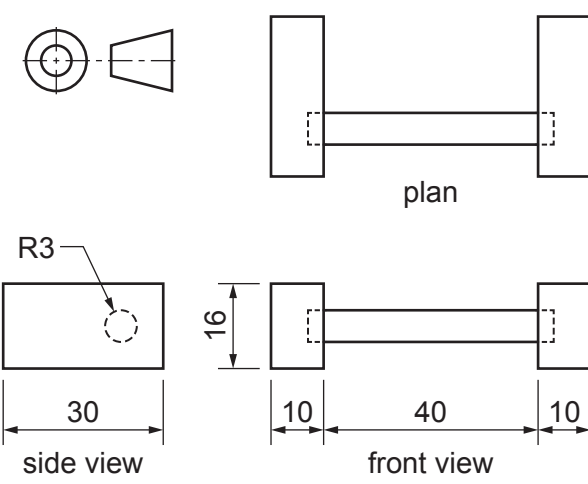
(iii) A section through a piece of the 5 mm thick foamboard is shown below.

Label the materials used to make foamboard. [2]

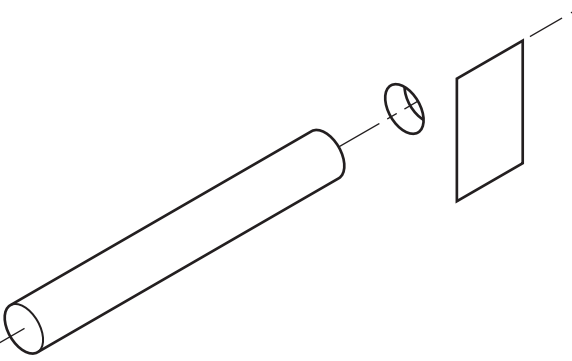


(c) A perch for the birds to stand on will be added to the front of the bird box.

Orthographic views of the perch are shown below.



Complete the full-size exploded view of the perch. [6]



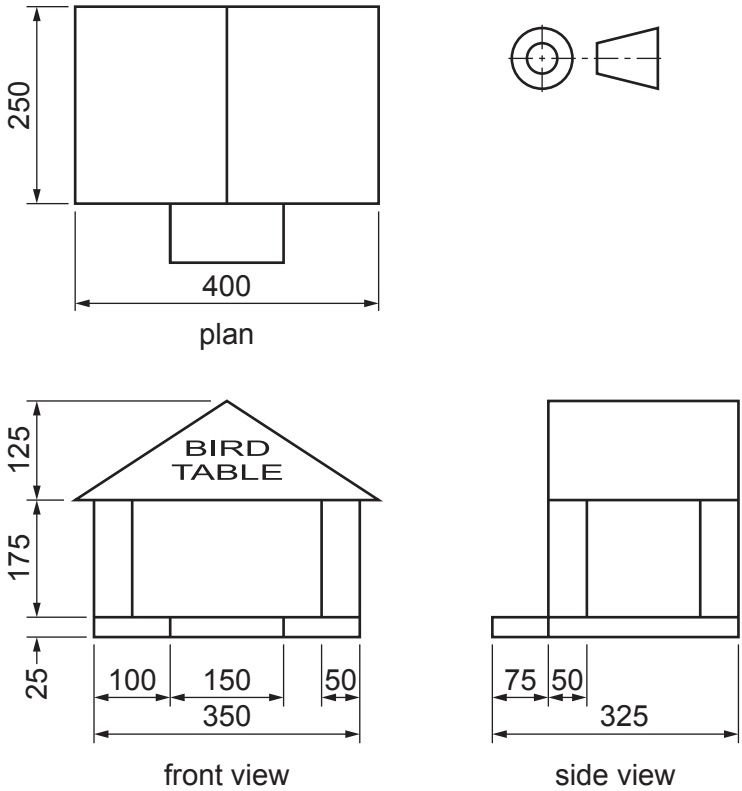
exploded view

(d) Information on different birds nesting in bird boxes is shown in the table below.

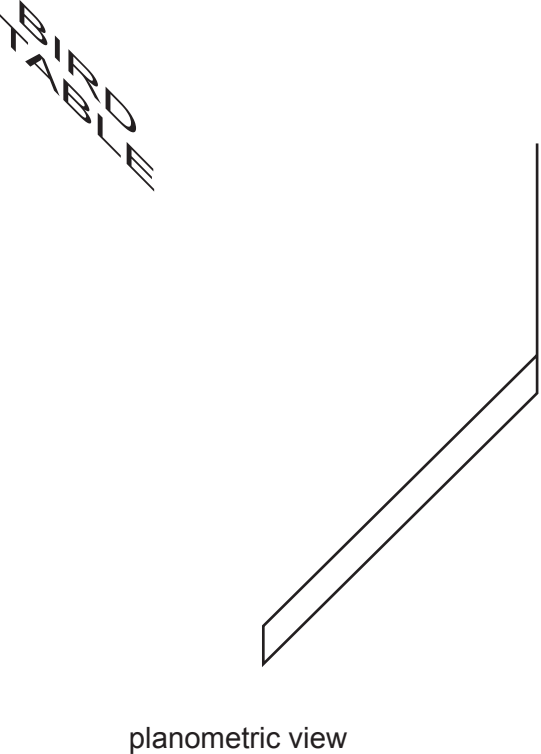
sparrow	starling	finch	robin
25%	50%	15%	10%

Draw a pie chart to show the information in the table. [3]

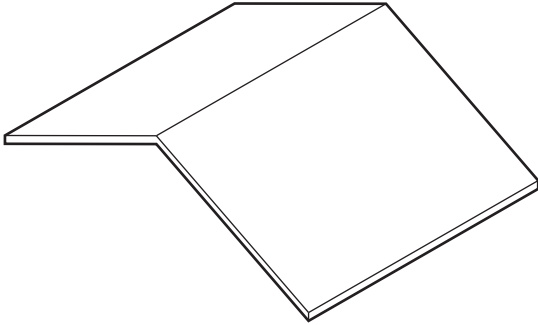
B5 Orthographic views of a bird table are shown below.



(a) Complete the planometric view of the bird table to a scale of 1 : 5. [14]



- (b) The bird table will have a sheet of thin plastic on the roof to make it more weather resistant.
- (i) Name a suitable thin sheet plastic for the roof of the bird table. [1]
-
- (ii) The thin sheet plastic needs to be shaped to fit the roof of the bird table as shown below.



Describe how the flat sheet of plastic could be formed into the correct shape.

.....

.....

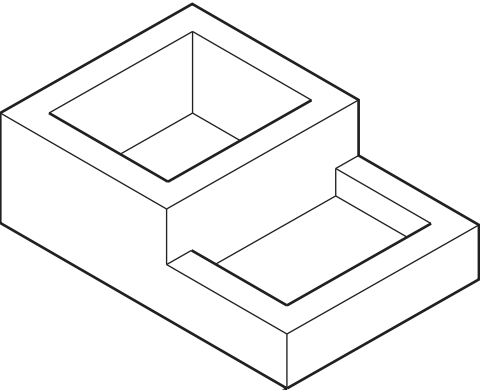
.....

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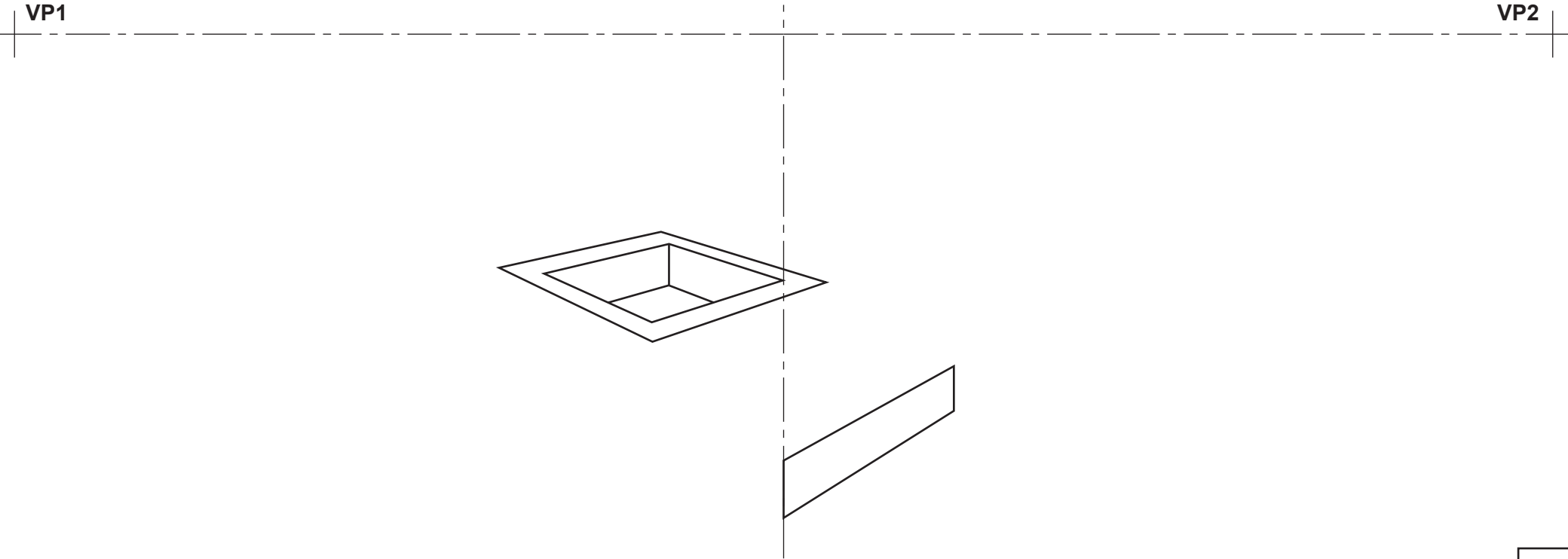
.....

..... [3]

- (c) A dish for water and bird seed will be placed on the front ledge of the bird table.
- The dish is shown below.



Complete the estimated two-point perspective view of the dish. [7]



estimated two-point perspective