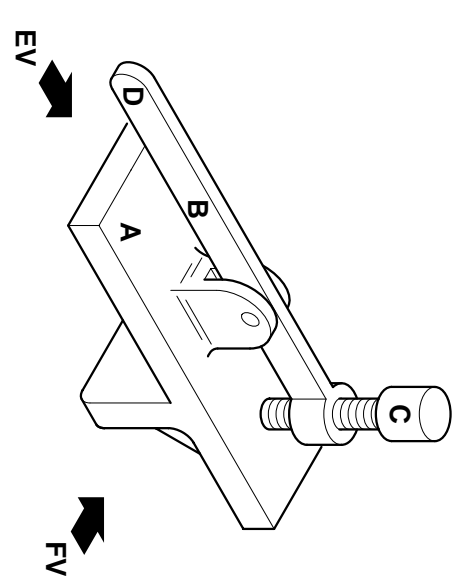
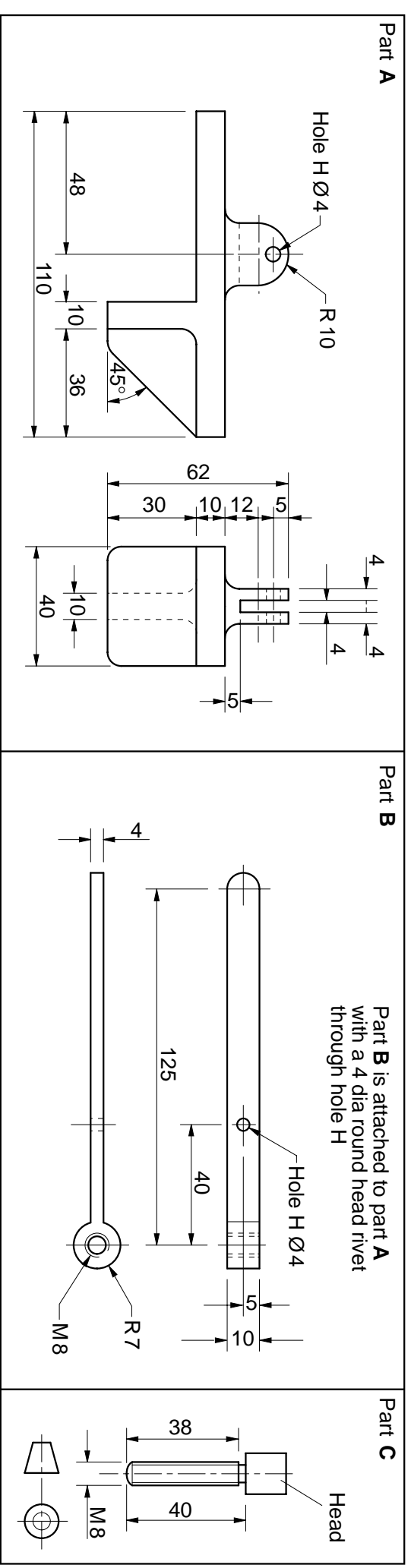


All parts of the question before starting to draw:  
 Part of a clamp for holding sheet metal onto a bench while it is being used, is shown to the right.  
 Orthographic views of the three parts **A**, **B** and **C** are given below.

Draw full size in third angle orthographic projection, the following views of the **assembled** tool:  
 (a) the view **FV**. Some of part **A** has been drawn for you. Include in your answer an alternative design for the head of the screw, part **C**, that will make it easier to tighten.  
 Part **B** is to be drawn in the horizontal position with the bottom of screw **C** touching part **A**.  
 (b) a plan in projection with (a).  
 Include hidden detail in both views.  
 Do not colour your answer. Dimensions not given are left for you to decide.



[15]  
[15]

2

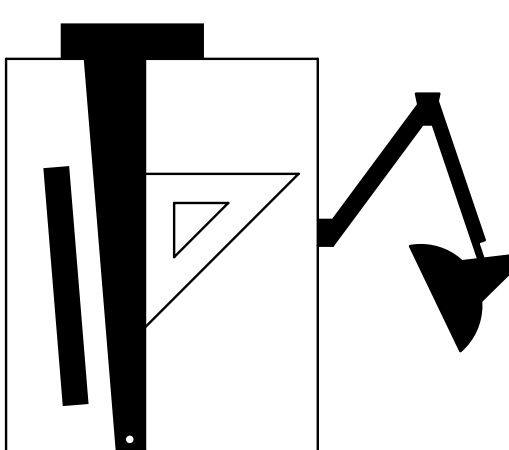
A newspaper advertisement for a Do-it-Yourself store uses symbols to inform customers of the services offered. The symbol for *Free Designing and Planning* is given to the right. Three other symbols are needed for:

- Garden Centre;
- Tools for Sale and Hire;
- Carry to the Car Service.

In the spaces indicated:  
 (a) sketch **two** different ideas for each of the three symbols required;  
 (b) draw accurately your chosen idea for each symbol.

[9]  
[21]

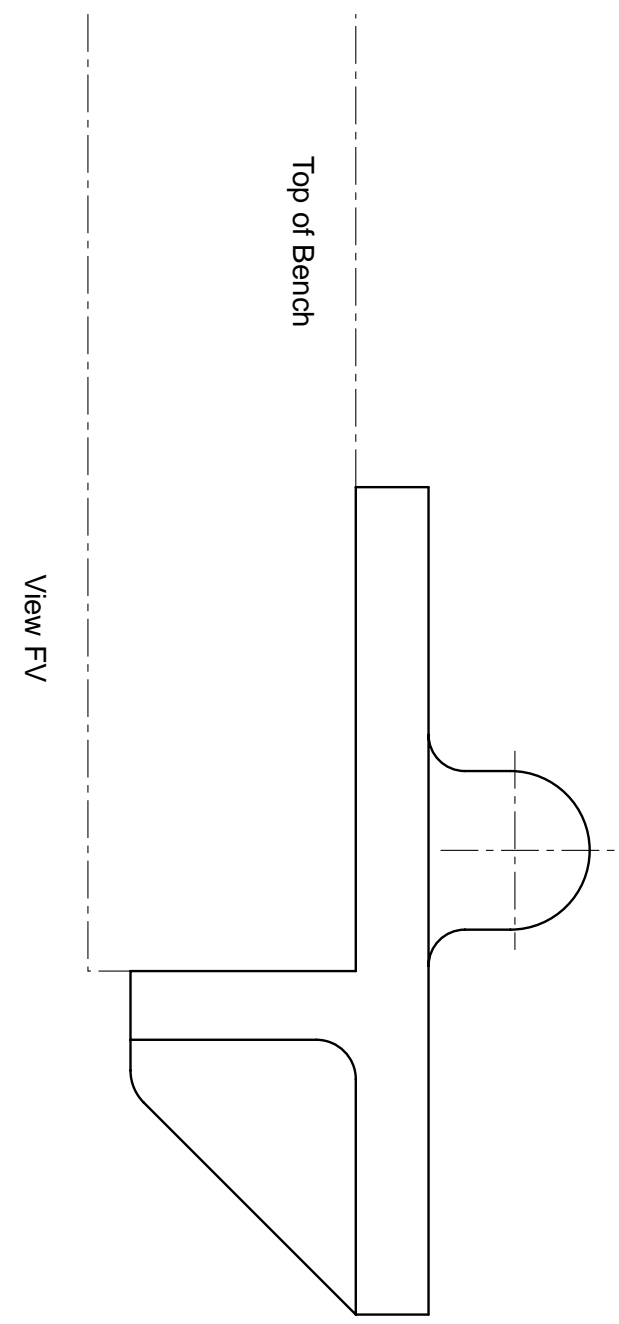
ANSWER PART (a) HERE



**FREE DESIGNING  
AND PLANNING**

ANSWER PART (b) HERE

<b>GARDEN CENTRE</b>	<b>TOOLS FOR SALE AND HIRE</b>	<b>CARRY TO THE CAR SERVICE</b>
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View FV

International General Certificate of Secondary Education

CAMBRIDGE INTERNATIONAL EXAMINATIONS

DESIGN AND TECHNOLOGY

PAPER 2 Communication

**0445/2**

OCTOBER/NOVEMBER SESSION 2002

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1 hour  
SP (NH/CG) S13062/3

TIME 1 hour

Print your surname, other names, Centre number and candidate number in the spaces provided.  
 Answer any **two** questions.  
 Draw your answer in the spaces provided on the question paper.  
 All dimensions are in millimetres.  
 The number of marks is given in brackets [ ] at the end of each question or part question.

Candidate's Surname.....

Other Names.....

Centre Number.....

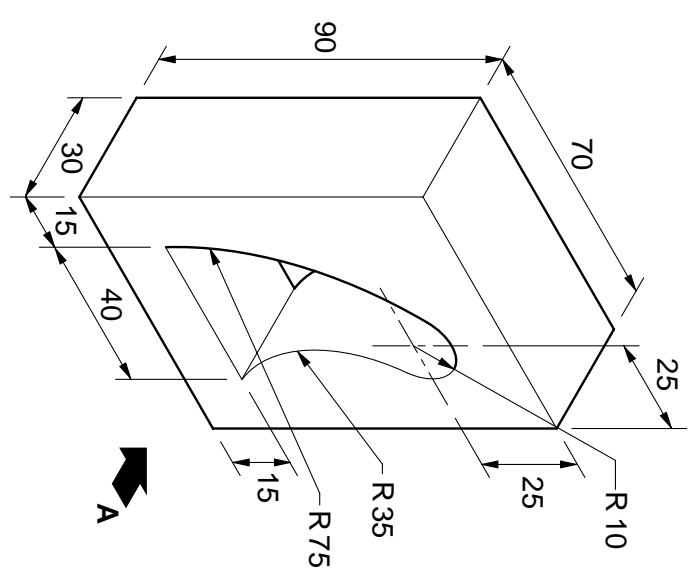
Candidate's Number.....

[Turn over

For Examiners' Use

A package is needed for a piece of delicate glassware. The package is to consist of a block of expanded polystyrene with a hole into which the glassware fits, contained in a box made from thin card. The polystyrene block must fit tightly in the box.

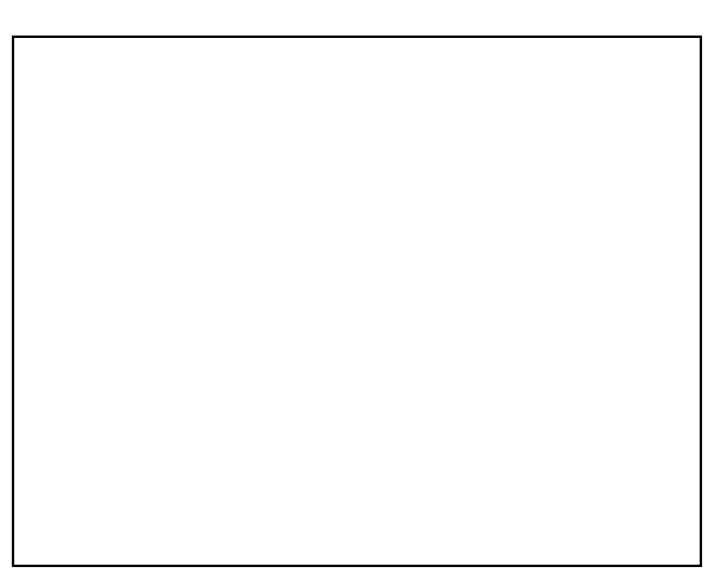
A sketch of the polystyrene block is given to the right.



- In the positions indicated:
- (a) complete the front view of the polystyrene block looking in the direction of the arrow A. [11]
  - (b) draw, full size, a one piece development of the box. [19]
- Include in the development:
- (i) all gluing and other flaps;
  - (ii) a regular octagonal hole, centrally placed in the front of the container through which the glassware can be seen. The octagon is to be 60mm across the flats. [19]

ANSWER PART (b) IN THE SPACE BELOW

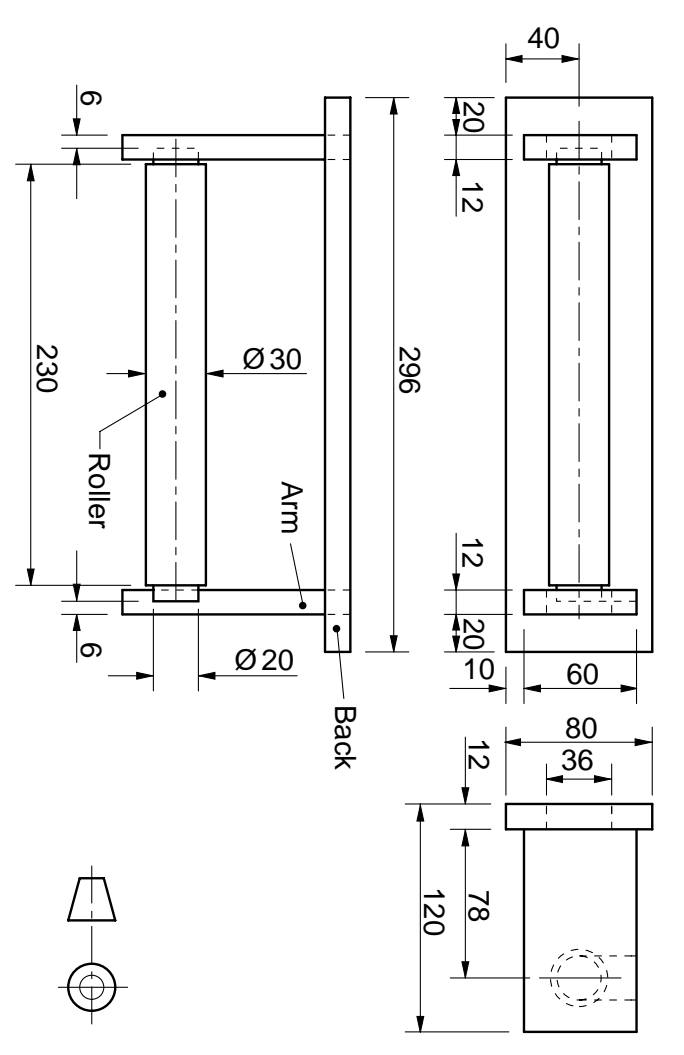
**ANSWER PART (a) HERE**  
Construct the outline of the hole correctly positioned in the front view A of the polystyrene block below.



An idea for a wooden kitchen-roll holder is shown in the orthographic views to the right.

In the positions indicated:

- (a) sketch modifications to the given shape of the parts of the kitchen-roll holder that would make it easier to use and more attractive to look at. [4]
- (b) (i) draw **freehand**, approximately half full size, an **exploded pictorial** view of the kitchen-roll holder showing how the parts are assembled. Include your chosen modifications for (a) in your drawing. [22]
- (ii) use colour and shading to show that the kitchen-roll holder is made from wood. [4]



ANSWER PART (a) HERE

ANSWER PART (b)(i) AND (ii) HERE