

1 Read 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:

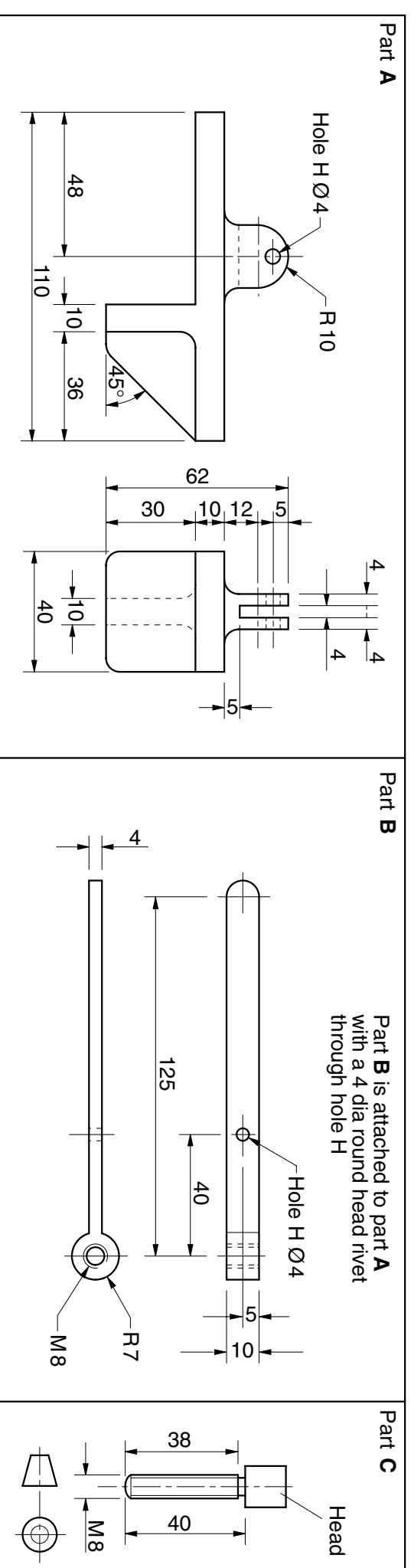
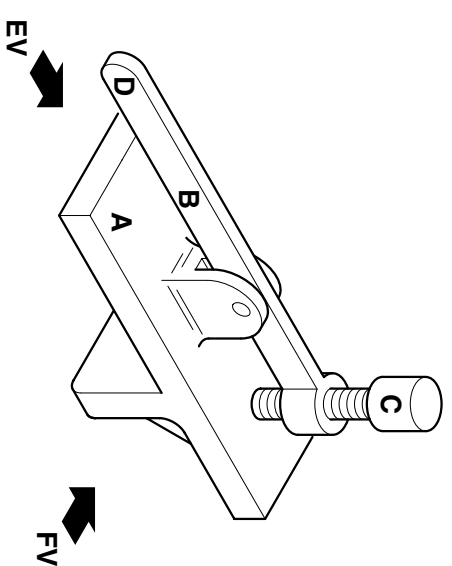
(a) the view **FV**. Some of part **A** has been drawn for you. Include in your answer an alternative design for the head of the screw, part **C**, that will make it easier to tighten.

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:

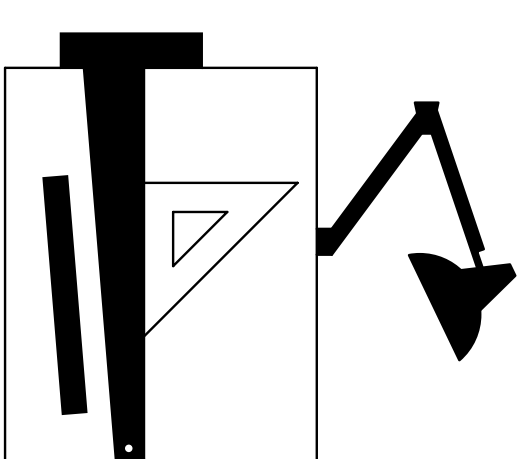
(a) sketch **two** different ideas for each of the three symbols required;

[9]

(b) draw accurately your chosen idea for each symbol.

[21]

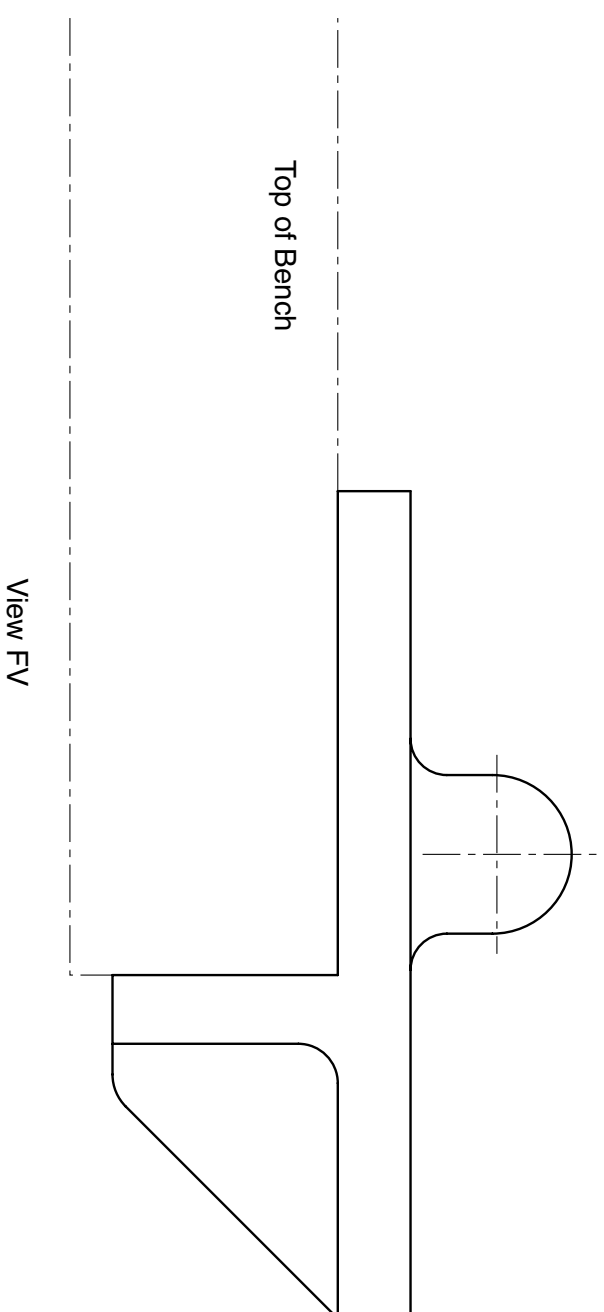
ANSWER PART (a) HERE



**FREE DESIGNING
AND PLANNING**

ANSWER PART (b) HERE

GARDEN CENTRE	TOOLS FOR SALE AND HIRE	CARRY TO THE CAR SERVICE



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.....

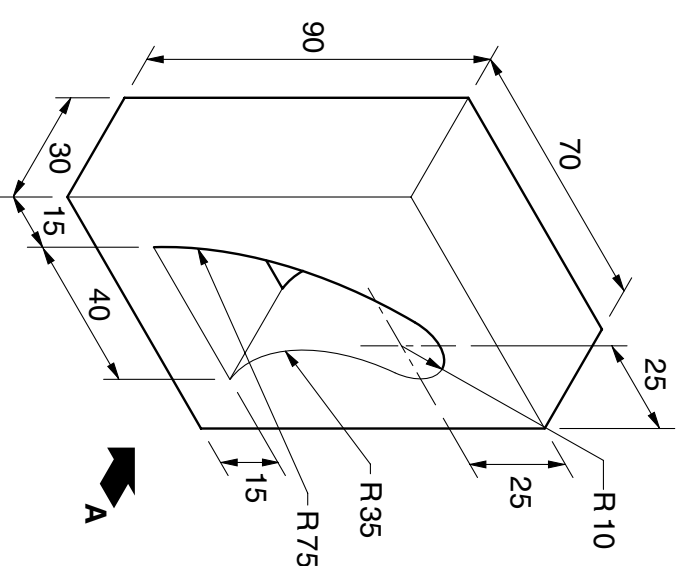
Candidate's Number.....

For
Examiners
Use

[Turn over

3

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) Geometrical constructions must be used for the outline of the hole; 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. [9]

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.

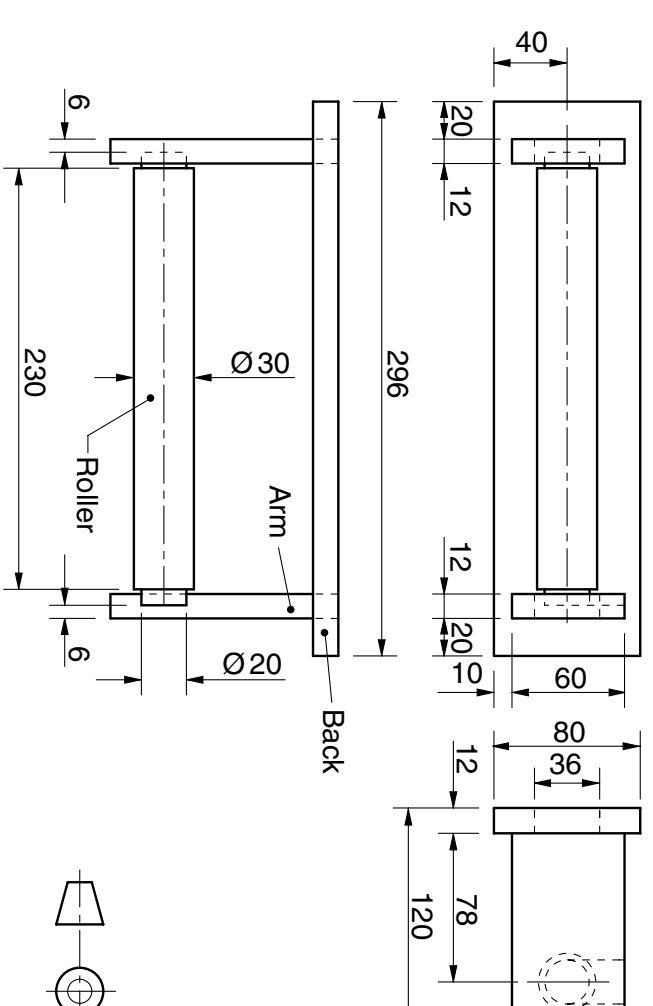


4

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