www.PapaCambridge.com Part A PAPER 2 Communication DESIGN AND TECHNOLOGY International General Certificate of Secondary Education © CIE 2002 **CAMBRIDGE INTERNATIONAL EXAMINATIONS** (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. Art 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. Hole H Ø 4 parts of the question before starting to draw. 10 36 **OCTOBER/NOVEMBER SESSION 2002** Top of Bench 62 30 10 12 5 10 40 1 hour SP (NH/CG) S13062/3 0445/2 View FV $\boldsymbol{\varpi}$ Draw your answer in the spaces provided on the question paper. Part **B** is attached to part **A** with a 4 dia round head rivet through hole H All dimensions are in millimetres. TIME The number of marks is given in brackets [] at the end of each question or part question. Answer any two questions. Print your surname, other names, Centre number and candidate number in the spaces provided. 125 [15] [15] 1 hour Hole H Ø 4 40 **≥** R7 Part C **≜** ₽ N ANSWER PART (a) HERE ANSWER PART (b) HERE 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. 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. **GARDEN** CENTRE Candidate's Surname..... Centre Number..... Candidate's Number... **TOOLS FOR SALE** AND HIRE

[9] [21] FREE AND PLANNING **DESIGNING**

CARRY TO THE

CAR SERVICE

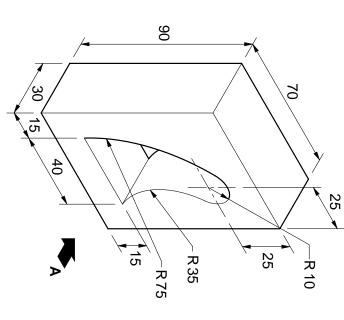
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Age is needed for a piece of delicate ware. The package is to consist of a block of panded polystyrene with a hole into which the glassware fits, contained in a box made from thin card. The polystyrene block must fit tightly in the box.

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



- (a) complete the front view of the polystyrene block looking in the direction of the arrow A. Geometrical constructions must be used for the outline of the hole;
 (b) draw, full size, a one piece development of the box. Include in the development: [11]
- all gluing and other flaps; 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.



VIEW A

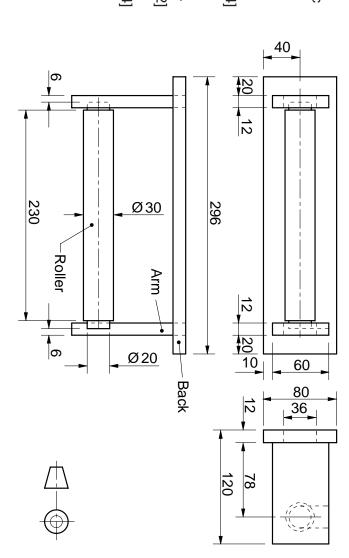
4 An idea for a wooden kitchen-roll holder is shown in the orthographic views to the right.
In the positions indicated:
(a) sketch modifications to the given shape of the parts of the kitchen-roll holder that would make it easier to use and more

- attractive to look at;
- \equiv 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;

 use colour and shading to show that the kitchen-roll holder is made from wood.

 \equiv

ANSWER PART (a) HERE



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