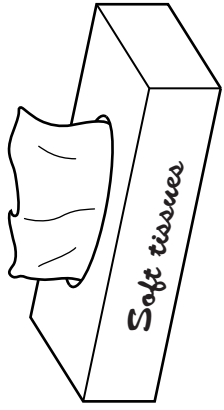


Section A

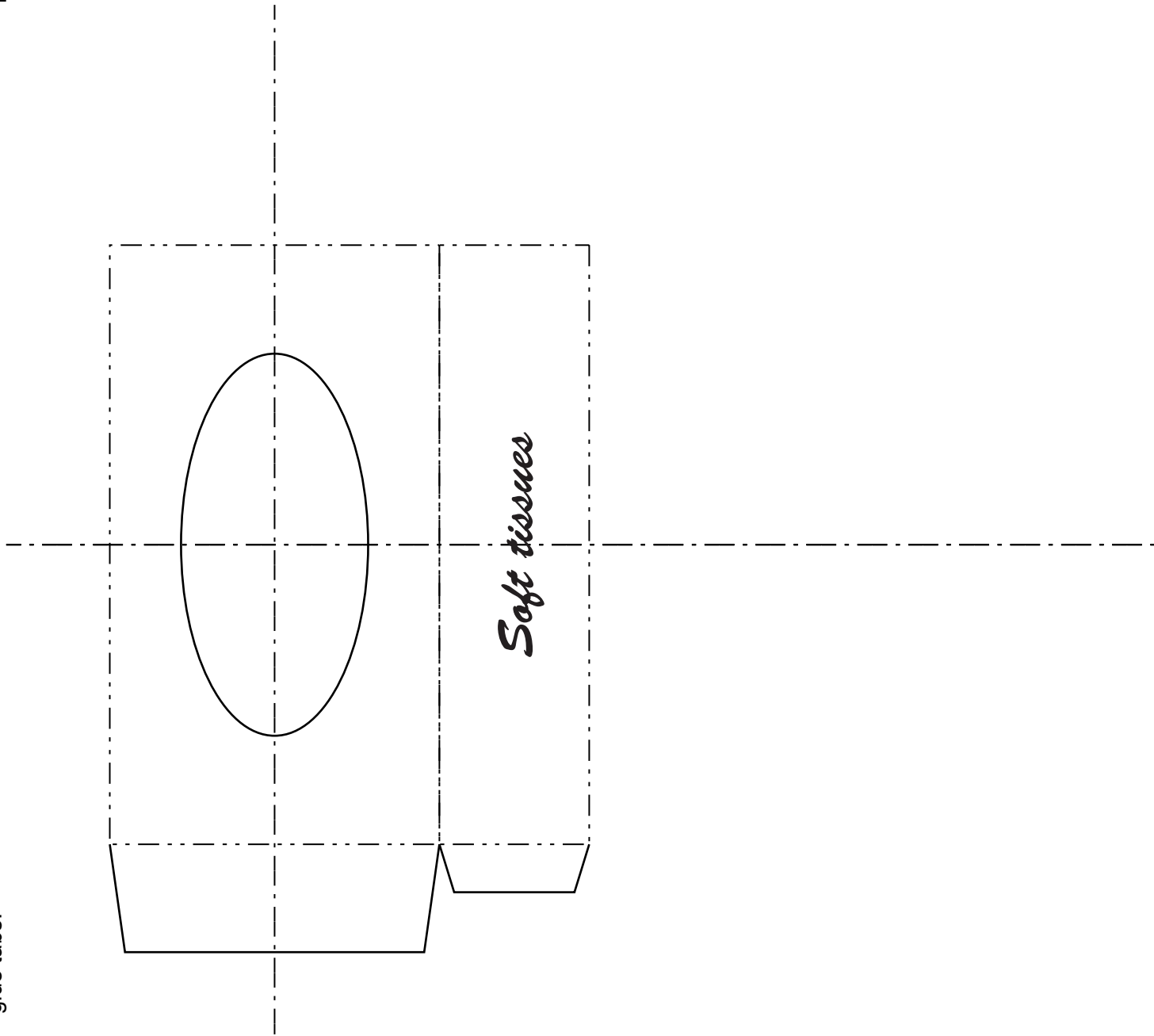
Answer all questions in this section.

A1 A sketch of a tissue box is shown on the right.



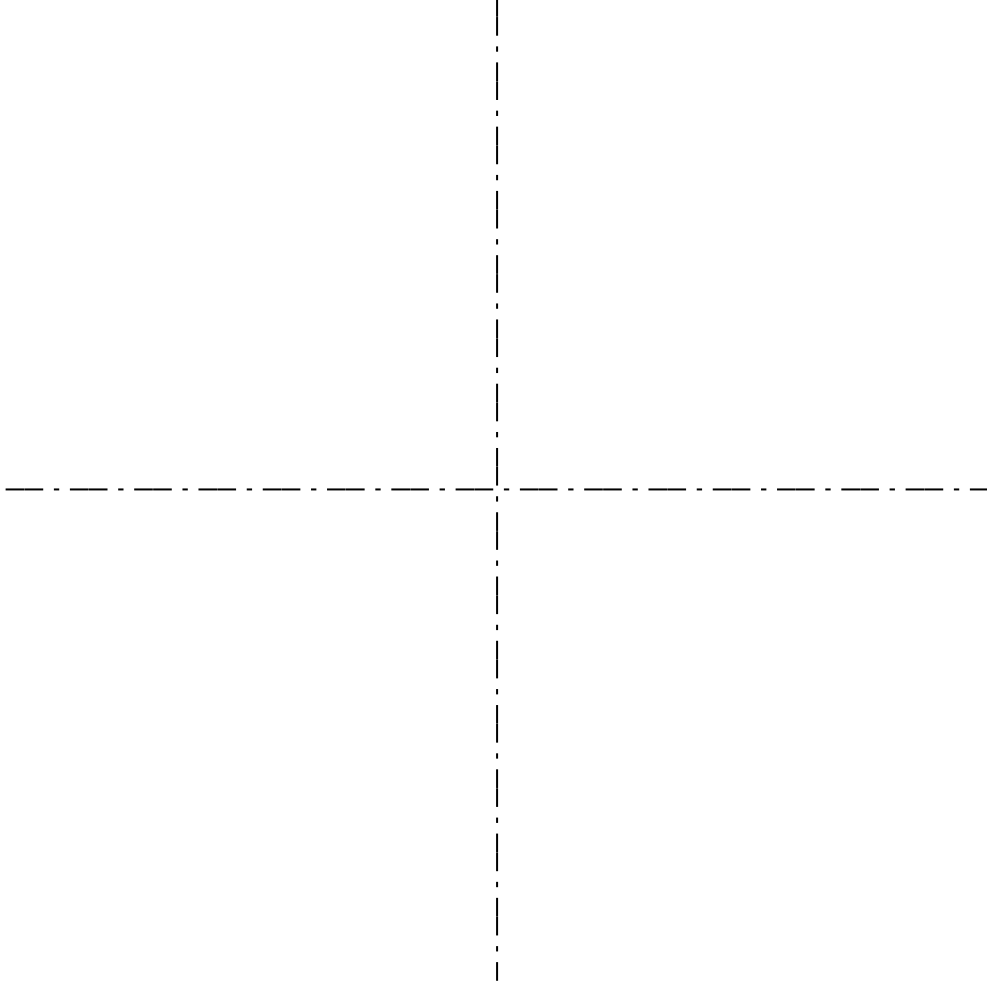
A scale 1 : 2 development (net) of the tissue box is shown below.

Complete the drawing of the development (net) of the tissue box by adding the missing surfaces and glue tabs. [7]



A2 An ellipse is printed on the top surface of the tissue box.

(a) On the centre lines below construct an ellipse with major axis 120 and minor axis 70. [6]



(b) The printed ellipse on the top of the tissue box is perforated. Use a sketch and notes to explain what is meant by the term perforated. [2]

0445/23
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1 hour

DC (RW) 1259/02

Centre Number

Candidate Number

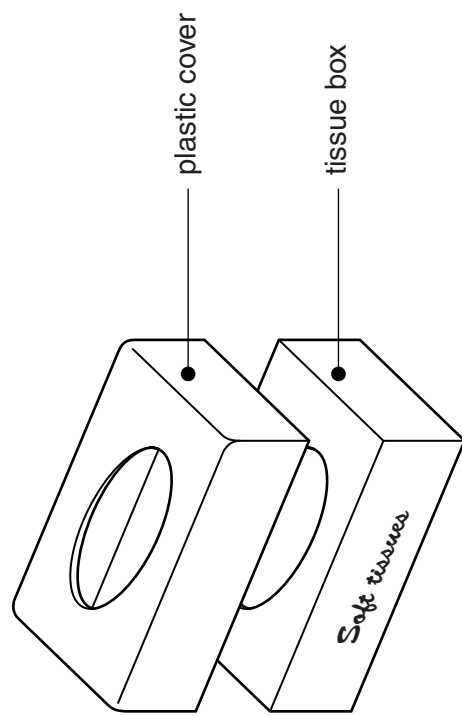
Candidate Surname

Other Names

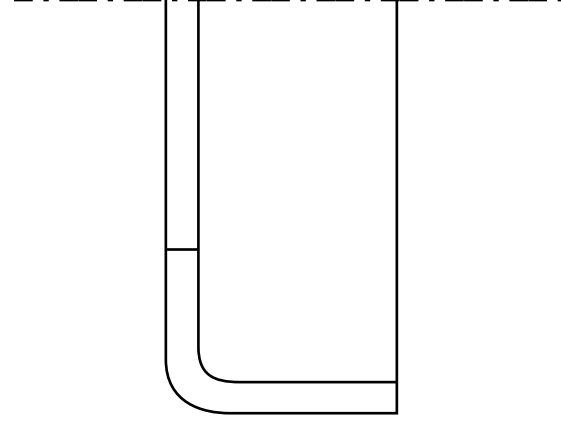
[Turn over

For Examiner's use	

A3 An exploded sketch of the tissue box and a plastic cover is shown below.

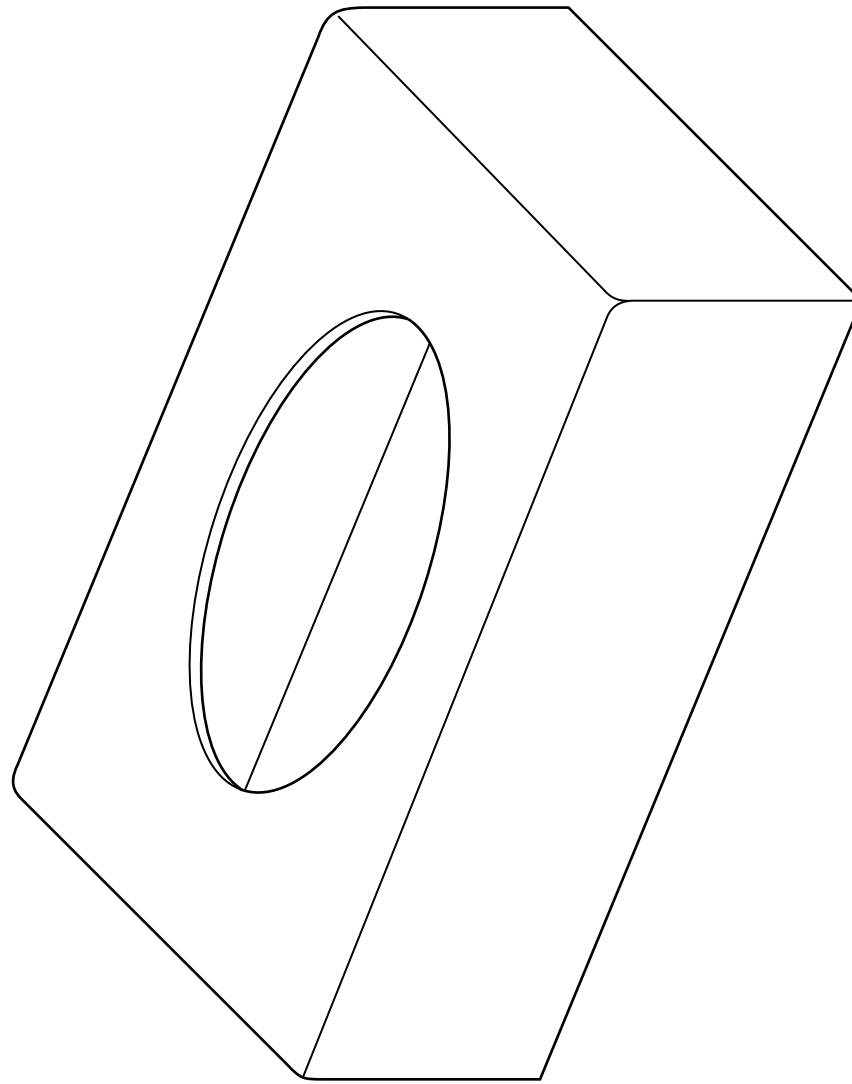


(b) Complete the sectional view below of the plastic cover.



[4]

(a) Render the drawing of the tissue box cover below to make it appear like shiny plastic. [3]



(c) (i) Name a plastic that could be used to make the cover. [1]

..... [1]

(ii) Give two reasons why this plastic is suitable for this product.

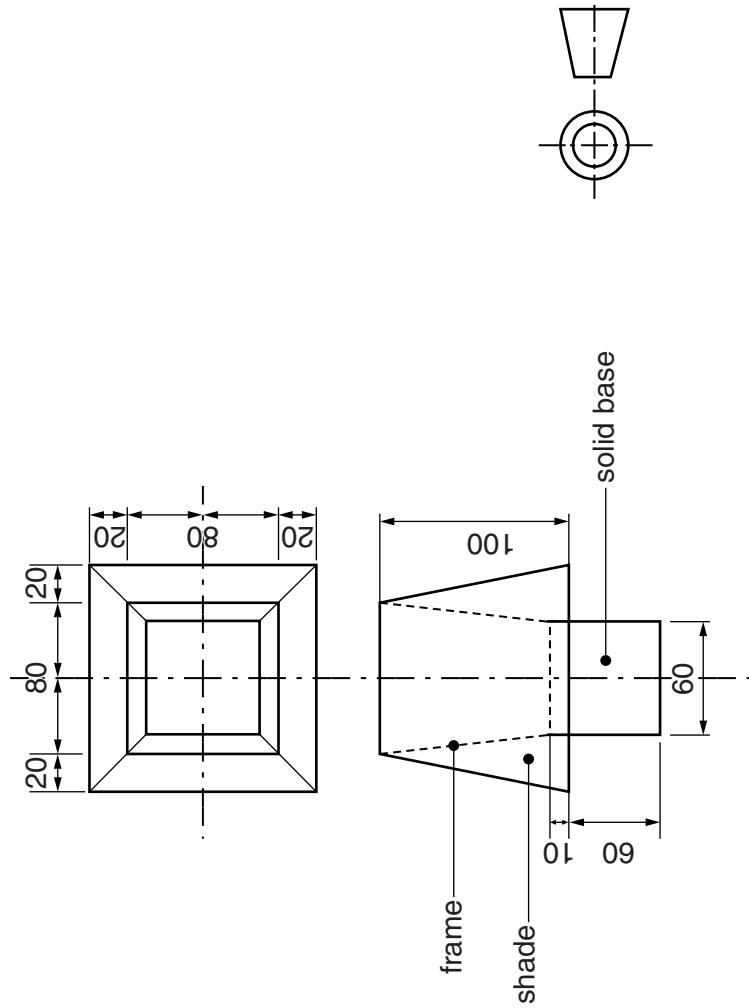
1.

.....

2.

..... [2]

B5 Orthographic views of a model of a lamp are shown below.



(a) On the start lines below draw scale 1 : 2 isometric drawings of:

- (i) the solid base; [5]
- (ii) the shade. [7]



base



shade

(b) Complete the table below to show the materials used to make the model of the lamp.

	Material	Reason
base [2]	This material is used for the base because it is available in large blocks and is easy to cut to shape with a craft knife or hot wire.
shade	Laminated paper [2]
frame [2]	This material is used to hold the shade in place on the lamp because it can be bent to shape by hand and held in place with tape.

(c) Use sketches and notes to explain how polymorph could be used to produce an ergonomically designed switch for the model of the lamp. [7]