



Leaving Certificate Examination

Design & Communication Graphics
Higher Level

Section A (60 Marks)

Sample Examination Paper
3 Hours Duration

This examination is divided into three sections:

- SECTION A (Core - Short Questions)
SECTION B (Core - Long Questions)
SECTION C (Applied Graphics - Long Questions)

- SECTION A**
- Four questions are presented
 - Answer **any three** on the A3 sheet overleaf
 - All questions in Section A carry **20 marks**

- SECTION B**
- Three questions are presented
 - Answer **any two** on A3 drawing paper
 - All questions in Section B carry **45 marks**

- SECTION C**
- Five questions are presented
 - Answer **any two** (i.e. the options you have studied) on A3 drawing paper
 - All questions in Section C carry **45 marks**

General Instructions:

- *Construction lines must be shown on all solutions*
- *Write the question number distinctly on the answer paper in Sections B and C*
- *Work on one side of the drawing paper only*
- *All dimensions are given in metres or millimetres*
- *Write your Examination number in the box below and on all other sheets used*

Examination Number:

SECTION A - Core - Answer Any Three of the questions on this A3 sheet

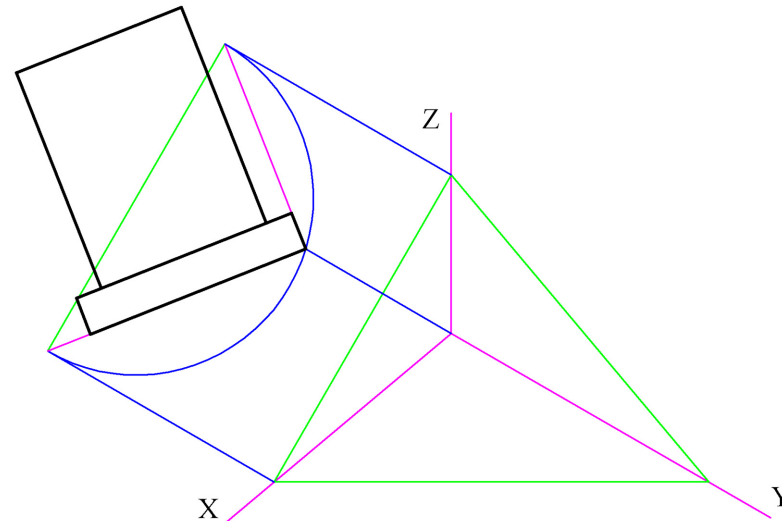
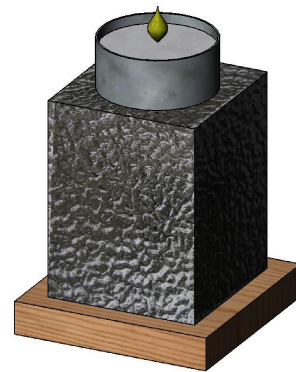
A-1. A stand for a nightlight candle is shown in the 3D graphic below.

It consists of a square based metal prism which is standing on a square wooden base.

A set of trimetric axes is shown on the right and the elevation of the object has been positioned relative to the axes as shown.

Draw the plan in its correct position and complete the axonometric projection.

Note: The candle may be ignored for the purposes of your drawing.

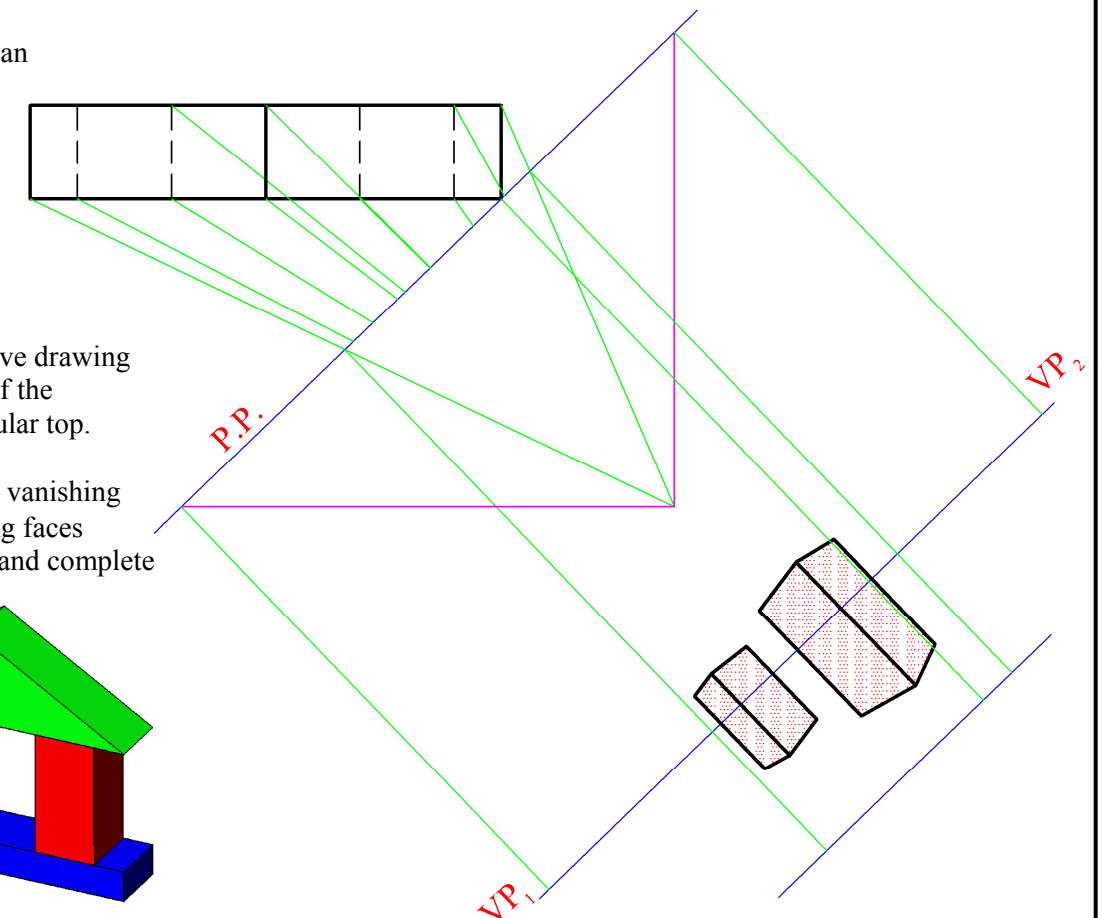
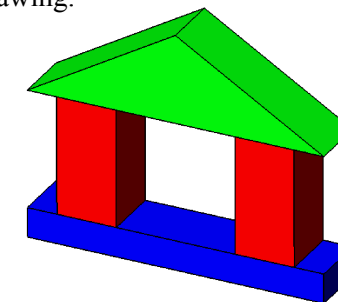


A-3. The 3D graphic shows an arrangement of playing blocks.

The drawing on the right is a partially completed perspective view of the structure.

(a) Complete the perspective drawing of the base block and of the underside of the triangular top.

(b) Determine an auxiliary vanishing point for the 30° sloping faces of the triangular block and complete the drawing.

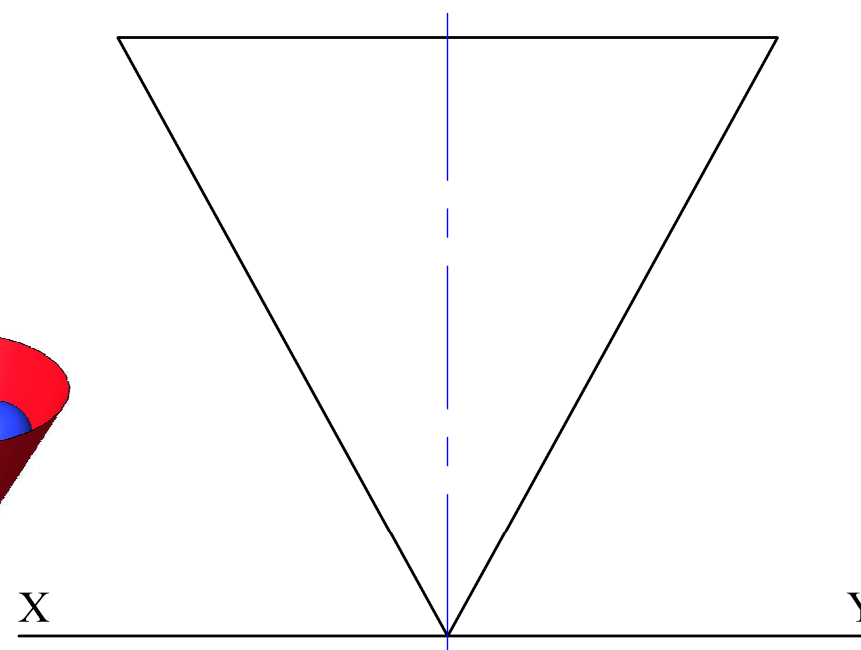
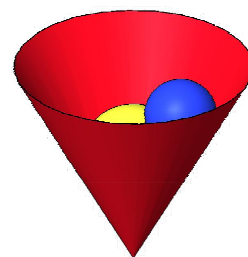
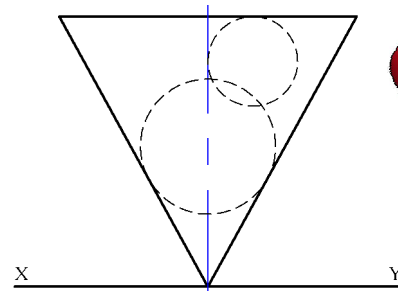


A-2. The diagram on the left below shows the elevation of an inverted hollow right cone. A sphere, of 20mm radius, is positioned inside the cone as shown. This sphere is shown in yellow in the 3D graphic which is also given below.

A second sphere is positioned so that it is in contact with the first sphere and the inside surface of the cone. This sphere is shown in blue in the pictorial view.

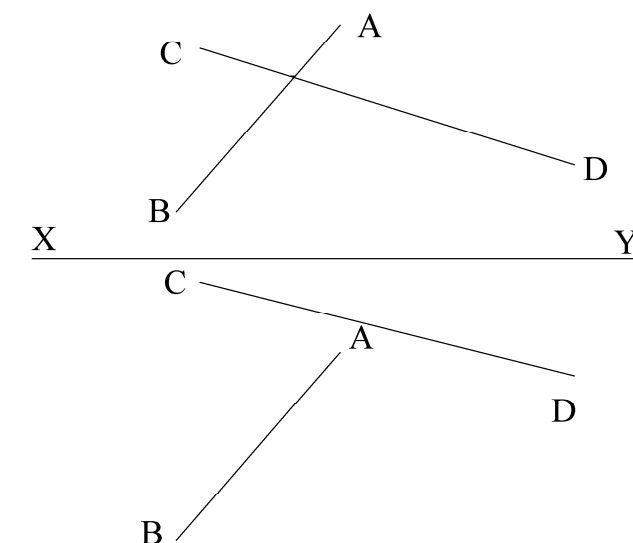
(a) On the drawing on the right, draw the elevation of the first sphere.

(b) Draw the elevation of the second sphere in the given position, clearly showing how its centre is located.



A-4. (a) The projections of two skew lines, AB and CD are shown. Determine the length of the shortest horizontal line between them.

(b) On the drawing, measure and indicate, in degrees, the angle of inclination of this line to the vertical plane.



**This Contour Map is part of Section C and
should only be used for the answering of the
Geologic Geometry Option (Question C-4)**

