

STAPLE HERE

FOR OFFICIAL USE

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X033/101

NATIONAL
QUALIFICATIONS
2011

WEDNESDAY, 1 JUNE
1.00 PM – 3.00 PM

GRAPHIC
COMMUNICATION
INTERMEDIATE 1

Fill in these boxes and read what is printed below.

Full name of centre

Town

Forename(s)

Surname

Date of birth
Day Month Year Scottish candidate number

Number of seat

70 marks are allocated to this paper

- 1 Answer **all** questions.
- 2 Read each question carefully before you answer.
- 3 Written answers may be in **ink** or **pencil**.
- 4 Drawings and sketches **must be in pencil**.
- 5 Dimensions are given in millimetres or as stated.
- 6 Orthographic drawings are in third angle projection.

At the end of the examination

- check that your name is on every sheet;
put the sheets in correct numerical order;
place this sheet on top of the others;
join all sheets together by **stapling** at the top left-hand corner;
before leaving the examination room, you must give these sheets to the Invigilator
(if you do not you may lose all the marks for this paper).

Question	Marks
1	
2	
3	
4	
5	
6	
7	
8	
Total Marks	



[BLANK PAGE]

1

From the list of common computer graphics terms given, select and match the correct term for each of the descriptions given below.

Zoom **Rotate** **Copy** **Mirror**

(a) Creates a reflected image of an object about a specified axis.

.....

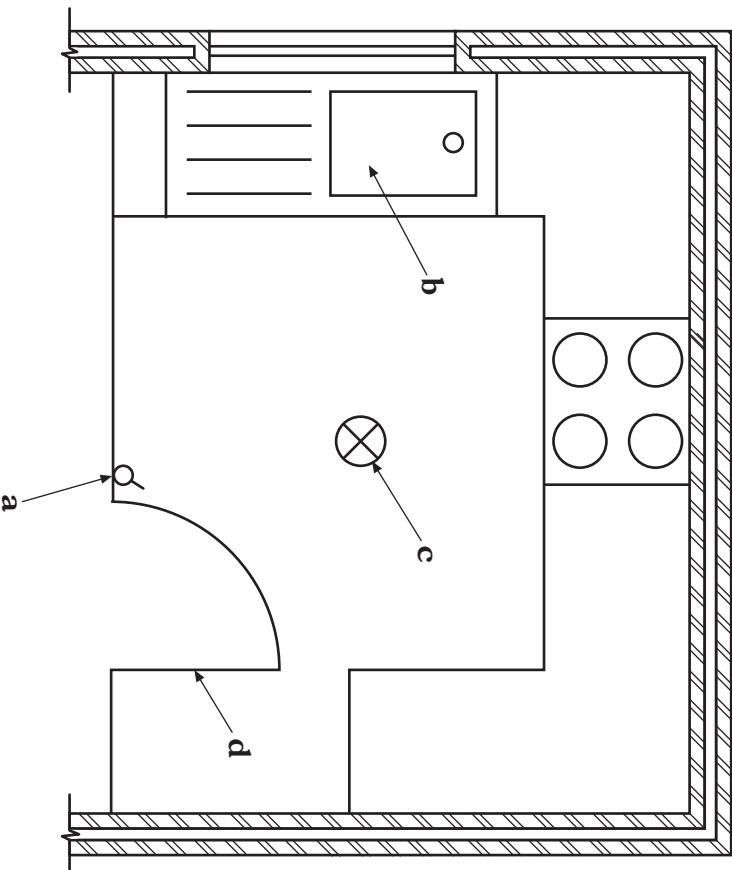
(b) Enlarges a section of a drawing to allow more accurate work to be carried out.

.....

(c)Duplicates objects without having to redraw them each time.

.....

(3 marks)

**2**

A floor plan for a new kitchen layout is shown below.
State the name of each of the British Standards architectural symbols indicated.

- | | |
|-----------|---|
| (a) | 1 |
| (b) | 1 |
| (c) | 1 |
| (d) | 1 |
- (4 marks)**

A chain of sportswear shops is being opened and the interior designer has chosen blue as the main colour theme for the shops.

- (a) What should be added to blue to give a **tint** of blue?
-

- (b) State a colour that would **contrast** with blue.
-

- (c) The designer would like to use different fill effects on the labels.
State the type of fill shown in each of the boxes below.

(i)



X

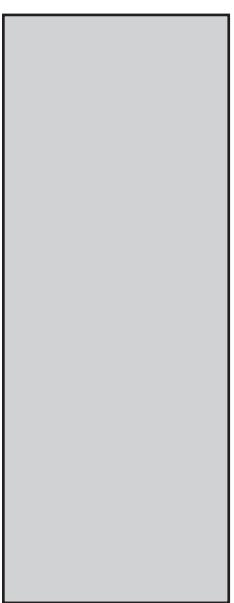
Fossil collecting is a rewarding hobby enjoyed by all types of persons, across the generations. Collectors are found to be an eclectic mix ranging across a wide continuum. At one extreme is the casual hobbyist for which collecting fossils is a means to belong to a community of common interest. Fossil clubs are such communities that can be found in many states, and are often active in teaching and in conducting organized field trips. Other communities are found on the Internet in discussion groups and blogs. At the other extreme are very serious collectors, possibly compulsive, possibly reclusive, who seem to live by a motto that "she/he who dies with the most fossils wins".

Fossil collecting is also an opportunity for parent and child to engage together in an activity that inherently educates each about the natural world, while affording each an intellectual challenge proportional to their age and knowledge. The pre-adolescent fossil collector of today would well become the molecular biologist of the future that helps unravel the mysteries of cancer. The adolescent of today who collects with nature while collecting fossils could become an environmental researcher in the future who works to protect the environment or researches global warming. The entirely plausible beneficial outcomes are prodigious for a young person who is forming a vision and dream about who they will become. All that said we are never too old to learn. Regardless of age, learning about science promotes an active mind and a social conscience. Finally, fossils are just plain nice to look at.

After plants and animals die they quickly begin to decay and/or be scavenged by other organisms. It is extremely rare for an animal or plant to be buried before it is consumed, and to be protected in this way that over millions of years, fossilization occurs. Species that live in water have the best chance of becoming fossilized since their dead bodies are more quickly covered by sediment when after sinking to the bottom. Sealed away from the usual processes of bacterial decay, these buried corpses are more likely to convert to fossils. While there exists billions and billions of fossils representing the traces of past life on earth, they are only to be found in certain bedding planes where rare conditions superimposed to enable preservation. Fossils are only to be found in sedimentary rocks, including clay, shale, sandstones and limestone, where

.....

(ii)



1

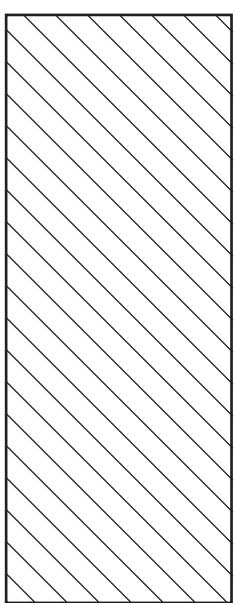
Y

the deceased plant or animal was covered by products of erosion, and thus protected from scavenging organisms, including microbes (bacteria), and the ravages of the elements.

Fossil collecting has changed markedly in the past few decades. Not so long ago fossil collectors acquired specimens themselves in quarries, road cuts and other outcrops where sedimentary rocks are exposed. Especially the last two decades has seen a dramatic change in how fossils are collected, the result of electrons travelling at the speed of light. Metaphorically, the Internet has largely replaced the Internet has largely replaced the rock hammer, and has replaced the rock hammer, and long interstate road trips have been replaced by a transporter that puts the collector in fossil localities around the earth within nanoseconds. Whereas in decades past, fossils were collected through time, sweat and toil, and whereas fossils from distant localities were seldom obtainable, fossils from across geological time from most localities on earth are now available with a few clicks of a mouse.

.....

(iii)



1

X

(a) State the desktop publishing features identified above.

.....

Y

(b) State the page orientation being used for the magazine.

.....

1

1

1

- (c) **Add** a footer of "*page 4*" to the page shown above.
-
- (d) The file size for the magazine page shown is 2Mb. The graphic designer would like to make a copy to take to a client. State a suitable **portable** storage device for this.

A new magazine is being published using a DTP package. One of the page layouts is shown below.

Collecting Fossils

Collecting fossils is a rewarding hobby enjoyed by all types of persons, across the generations. Collectors are found to be an eclectic mix ranging across a wide continuum. At one extreme is the casual hobbyist for which collecting fossils is a means to belong to a community of common interest. Fossil clubs are such communities that can be found in many states, and are often active in teaching and in conducting organized field trips. Other communities are found on the Internet in discussion groups and blogs. At the other extreme are very serious collectors, possibly compulsive, possibly reclusive, who seem to live by a motto that "she/he who dies with the most fossils wins".

Fossil collecting is also an opportunity for parent and child to engage together in an activity that inherently educates each about the natural world, while affording each an intellectual challenge proportional to their age and knowledge. The pre-adolescent fossil collector of today would well become the molecular biologist of the future that helps unravel the mysteries of cancer. The adolescent of today who collects with nature while collecting fossils could become an environmental researcher in the future who works to protect the environment or researches global warming. The entirely plausible beneficial outcomes are prodigious for a young person who is forming a vision and dream about who they will become. All that said we are never too old to learn. Regardless of age, learning about science promotes an active mind and a social conscience. Finally, fossils are just plain nice to look at.

After plants and animals die they quickly begin to decay and/or be scavenged by other organisms. It is extremely rare for an animal or plant to be buried before it is consumed, and to be protected in this way that over millions of years, fossilization occurs. Species that live in water have the best chance of becoming fossilized since their dead bodies are more quickly covered by sediment when after sinking to the bottom. Sealed away from the usual processes of bacterial decay, these buried corpses are more likely to convert to fossils. While there exists billions and billions of fossils representing the traces of past life on earth, they are only to be found in certain bedding planes where rare conditions superimposed to enable preservation. Fossils are only to be found in sedimentary rocks, including clay, shale, sandstones and limestone, where

(a)

(b)

(c)

(d)

5

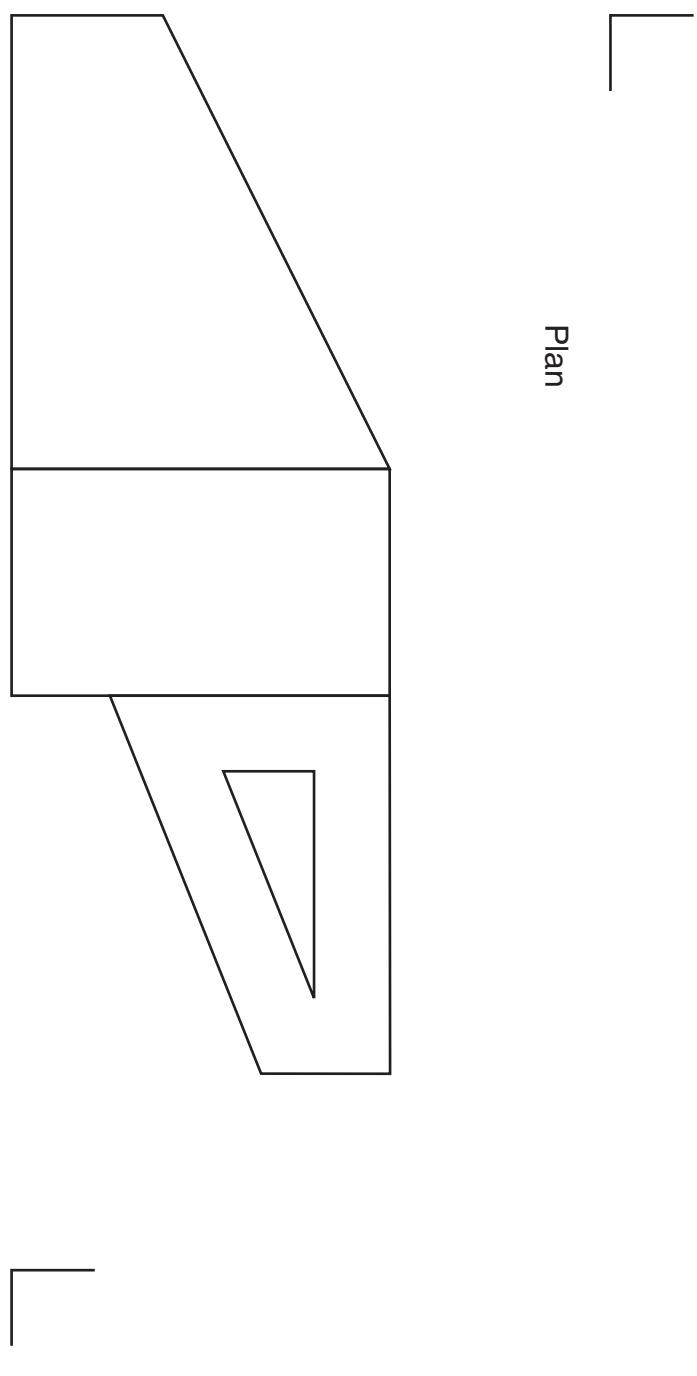
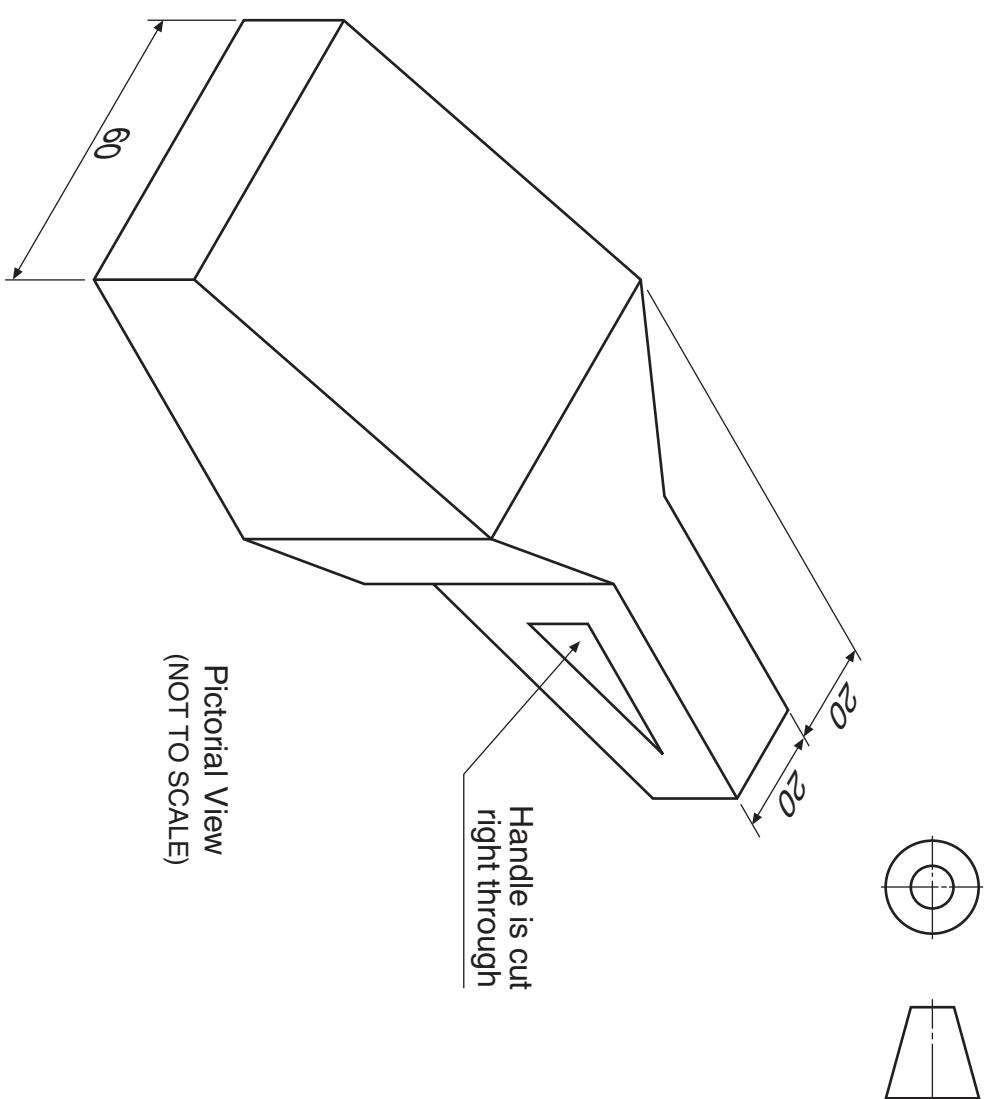
The elevation of a portable vacuum cleaner is given.
A pictorial view is also shown.

Draw, full size, in the positions indicated:

- (a) the end elevation;
- (b) the plan.

Show all hidden detail.

(12 marks)



Plan

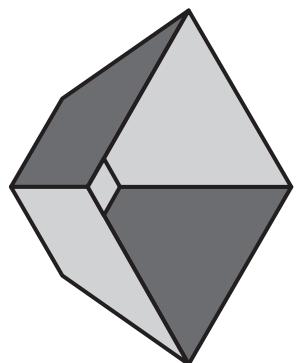
a	
b	
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m	
n	

End Elevation

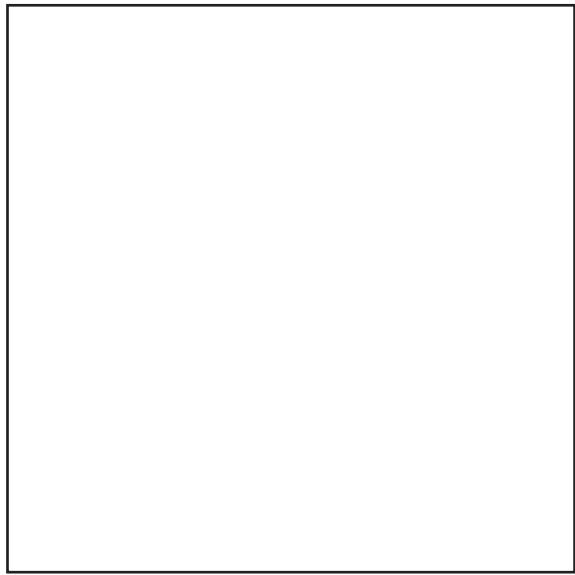
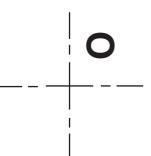
The elevation and incomplete plan of a baking tin are given.
A pictorial view is shown.

Draw, in the positions indicated:

- (a) the complete plan;
- (b) the end elevation;
- (c) the development of the sides of the baking tin. **(13 marks)**



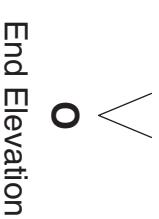
Pictorial View



Plan

a	
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Development



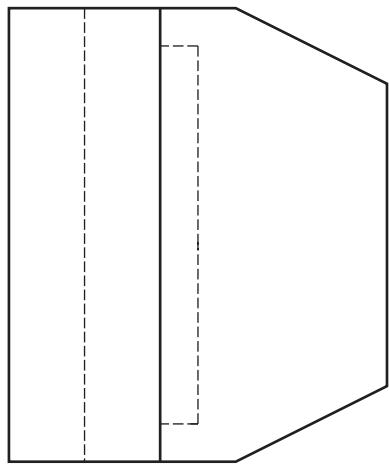
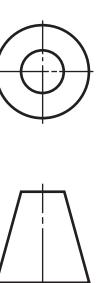
Elevation

The elevation, end elevation and plan of an arcade machine are given.

Draw, using starting point **X**, an isometric view of the arcade machine.

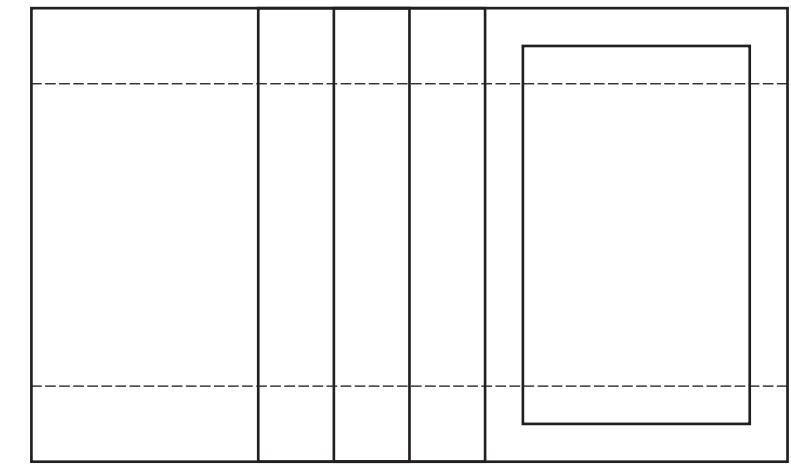
Do not show hidden detail.

(13 marks)

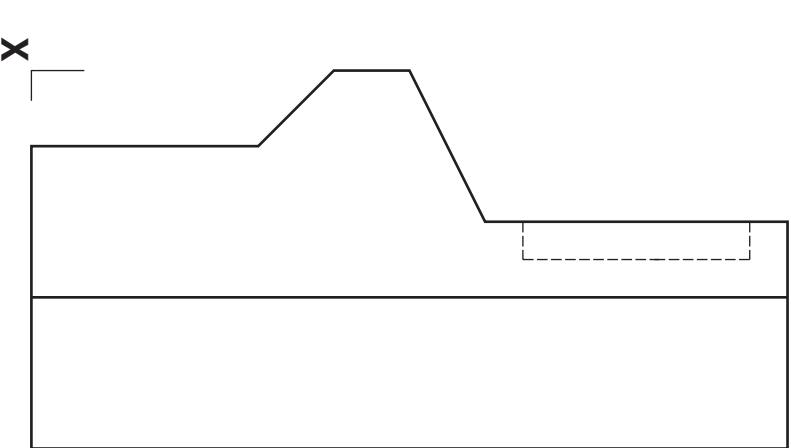


Plan

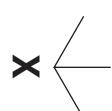
a	
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Elevation



End Elevation



Isometric View

The elevation and end elevation of a garlic dish base and lid are given.
A pictorial view is shown.

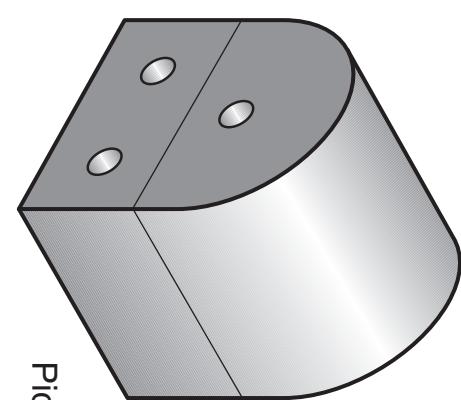
Draw full size, in the positions indicated:

- (a) the **assembled** elevation of the garlic dish;
- (b) the **assembled** plan of the garlic dish;

Show all hidden detail.

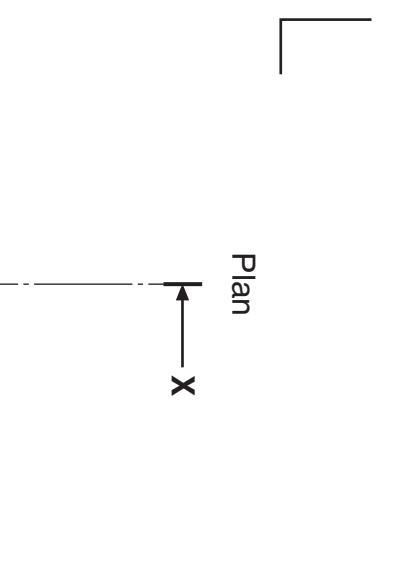
- (c) the **assembled** sectional end elevation on **X-X**.

(15 marks)

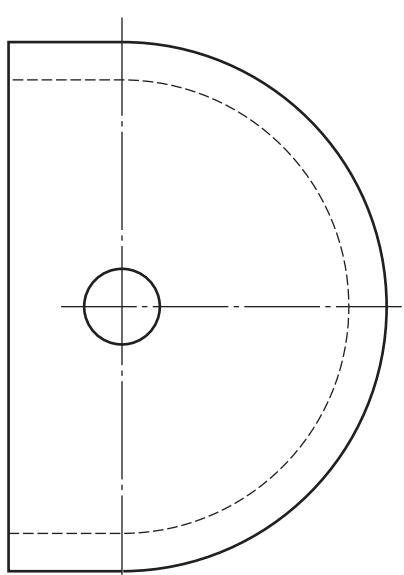


Pictorial View

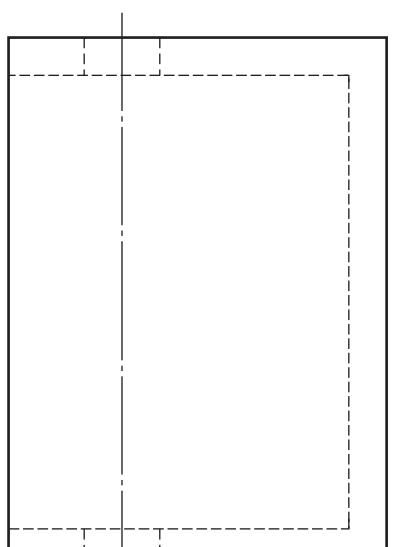
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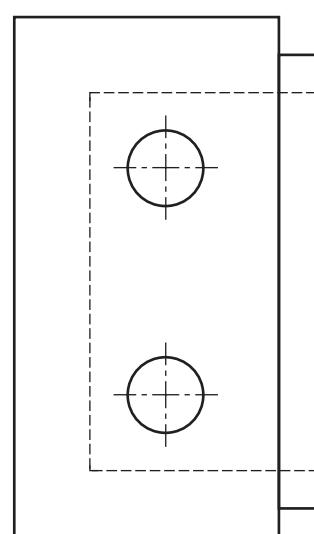
Plan



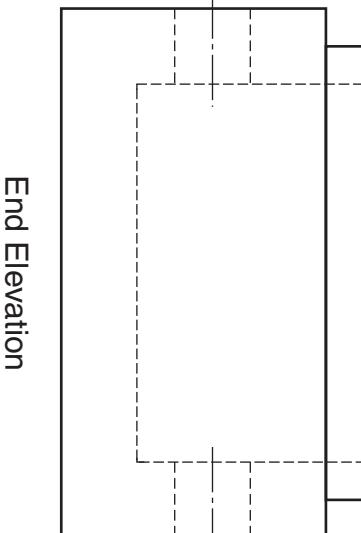
LID



End Elevation



BASE



End Elevation

Elevation
Sectional End Elevation X-X