

STAPLE HERE

FOR OFFICIAL USE

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**1330/403**

NATIONAL  
QUALIFICATIONS  
2009

FRIDAY, 22 MAY  
1.00 PM – 2.45 PM

GRAPHIC  
COMMUNICATION  
STANDARD GRADE  
Credit Level

Fill in these boxes and read what is printed below.

Full name of centre			Town		
<input type="text"/>			<input type="text"/>		
Forename(s)			Surname		
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Date of birth		Scottish candidate number		Number of seat	
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1 110 marks are allocated to this paper: 40 marks for Knowledge and Interpretation  
70 marks for Drawing Abilities

- 2 Answer all questions.
- 3 Read each question carefully before you answer.
- 4 Written answers may be in **ink** or **pencil**.
- 5 Drawings and sketches **must be in pencil**.
- 6 Sketches need only be in line form—do not spend time rendering.
- 7 Dimensions are given in millimetres or as stated.
- 8 Orthographic drawings are in third angle projection.
- 9 For each question, the element being tested and the mark allocation are shown in brackets, eg (DA 5) means a question on Drawing Abilities worth 5 marks.
- 10 **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).

	KI	DA
1		
2		
3		
4		
5		
6		
7		
8		
9		
Total Marks		



[BLANK PAGE]

A company that designs toys for children now uses computers for all its graphics needs.

(a) Other than speed of production, state **three** advantages of using computers when compared with manual methods of producing new designs.

1 .....

.....

2 .....

.....

3 .....

.....

KI 3

(b) State **three** disadvantages that the firm could have found by using computers.

1 .....

.....

2 .....

.....

3 .....

.....

KI 3

(c) State the type of software package that would be used for the following.

(i) Producing an advertising leaflet with text and graphics

Answer .....

(ii) Producing a fully dimensioned production drawing

Answer .....

(iii) Producing a fully rendered graphic of a new product

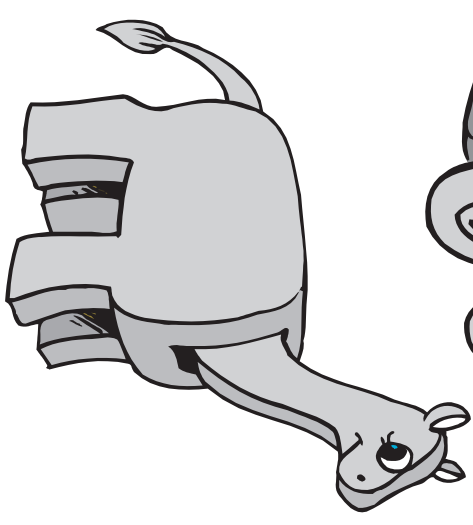
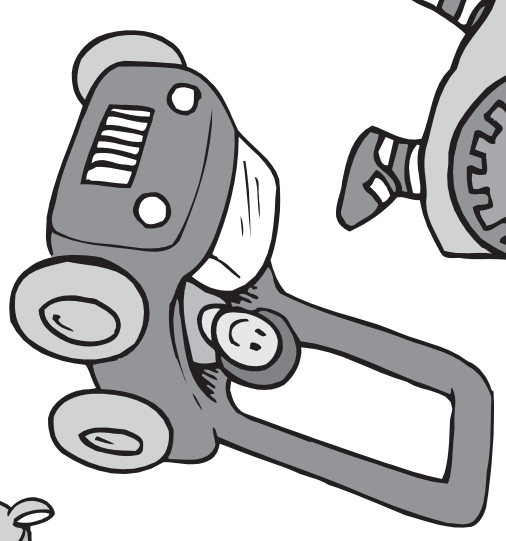
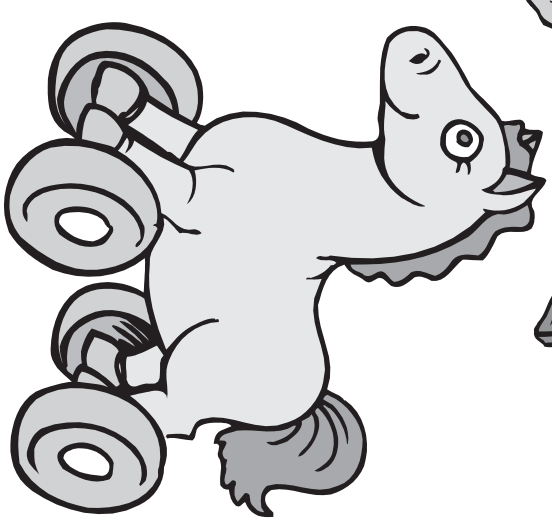
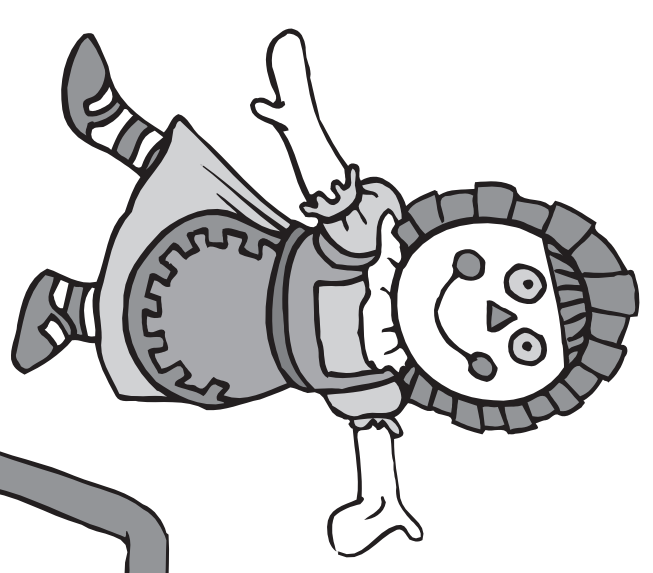
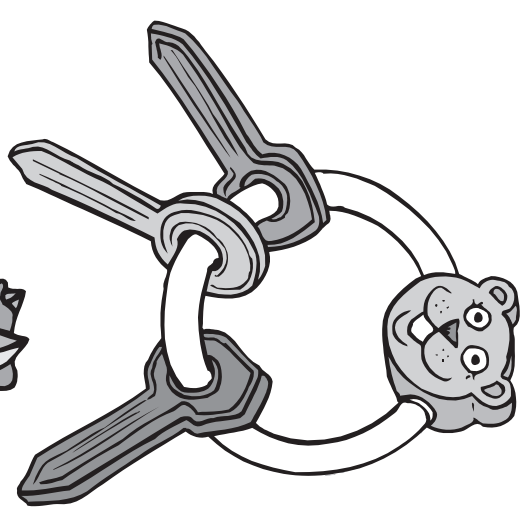
Answer .....

KI 3

(d) State the name of a device that could be used to copy manually rendered graphics to the computer's memory.

Answer .....

KI 1



(e) State what is meant by the term compatible when applied to different software.

Answer .....

KI 1

Total (KI 11)

When choosing a colour scheme for a new travel shop, the choice of colour is very important.

(a) Complete the following table by adding the missing information.

AREA	COLOUR	REASON FOR CHOICE
Interior Walls	Yellow	
Floor Covering	Blue	
Ceiling		<i>Represents cleanliness</i>
Brochure Display Area	Blue-Violet	
Shop Front	Red	
First Aid Cabinet		<i>Associated with safety</i>

KI 6

(b) State **one** advancing and **one** receding colour from the colours used in this colour scheme.

Advancing ..... Receding.....

KI 2

(c) State a colour that could be used for the seating in the shop, which is in harmony with the floor.

Answer .....

KI 1

(d) Describe how you would create a tertiary colour.

Description .....

KI 1

(e) State the effect created by using so many contrasting colours in the same colour scheme.

Effect .....

KI 1

Total (KI 11)



In the designing, testing, building and marketing of new cars, computers are now used at every stage to aid the designer.

(a) Other than cost, state **two** advantages of computer-generated models over built scale models.

- 1 .....
- .....
- 2 .....
- .....

KI 2

(b) State **two** disadvantages of computer-generated models when compared to built scale models.

- Answer .....
- .....
- Answer .....
- .....

KI 2

(c) State the names of **two** types of computer-generated models.

- 1 .....
- 2 .....

KI 2

(d) The company used animation and simulation software on their new car designs. State the difference between animation and simulation.

- Answer.....
- .....

KI 1

(e) State **one** way in which the company could use a computer animation of a new car design.

- Answer.....
- .....

KI 1

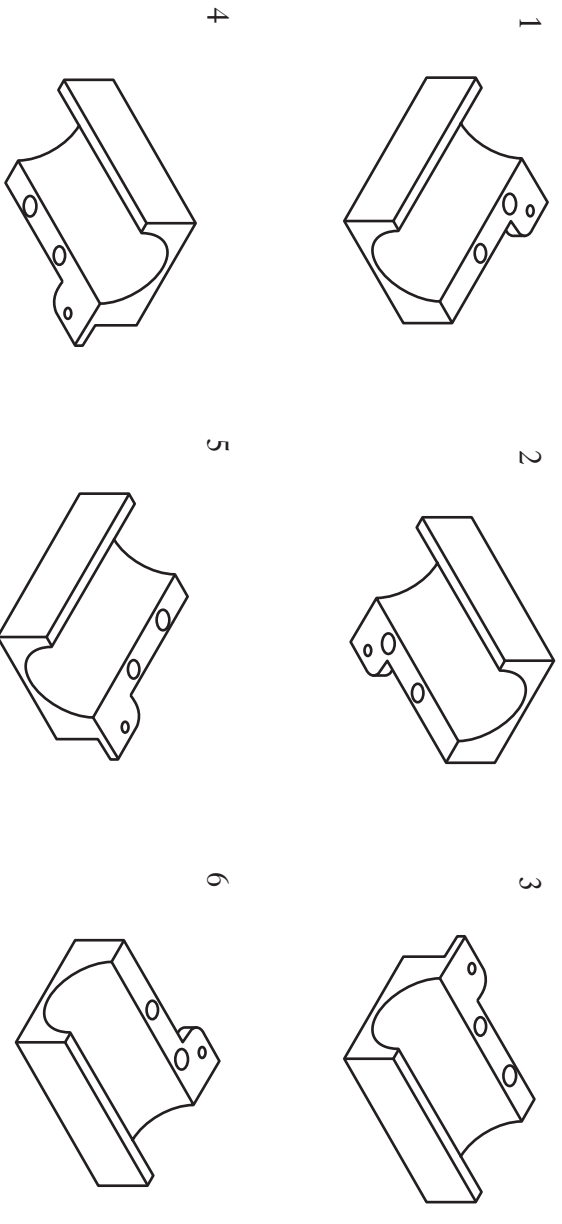
(f) State **one** possible way in which computer simulation could be used to help with the designing of a new car.

- Answer.....
- .....

KI 1



The elevation, end elevation and plan of part of a shelf bearing are shown in **Drawing X**.



(a) State which **two** of the pictorials 1 to 6 above represent the bearing shown in **Drawing X**.

Answer 1 ..... Answer 2 .....

(b) State the name given to the types of pictorial shown above.

Answer .....

(c) Drawings 1 to 6 above are not drawn to scale. State **two** factors that affect the scale used.

Answer 1 .....

.....

Answer 2 .....

..... **KI 2**

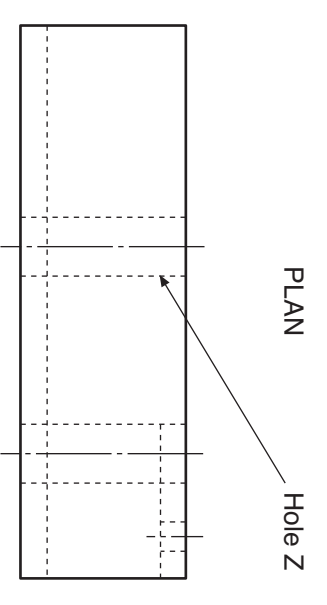
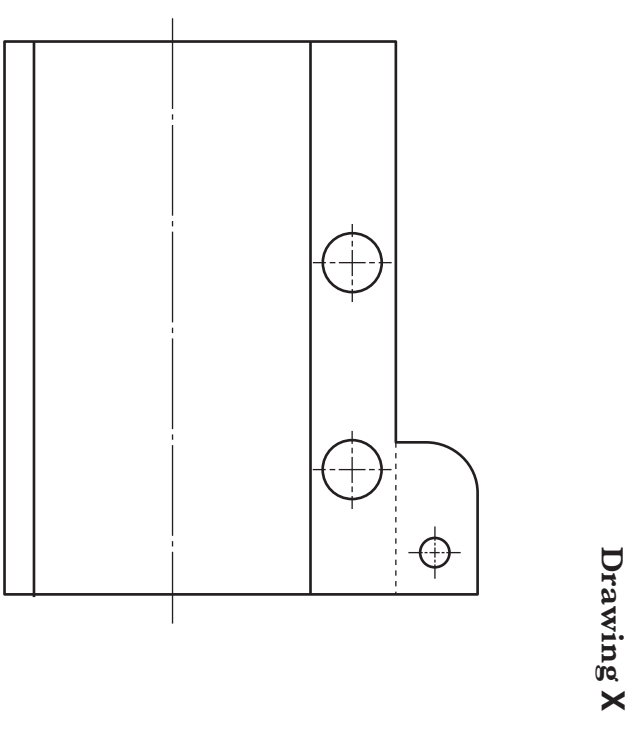
(d) British Standard drawing conventions are commonly used in the production of new designs. State **one** possible benefit to be gained by their use.

Answer .....

..... **KI 1**

(e) Draw the overall length and height to the elevation and the diameter of hole Z to the plan of **Drawing X**, using the correct British Standard convention for dimensioning.

**Total (KI 9)**



ELEVATION

END ELEVATION

An end elevation of a torch is given. Two pictorial views and a sketch are shown.

**Draw:**

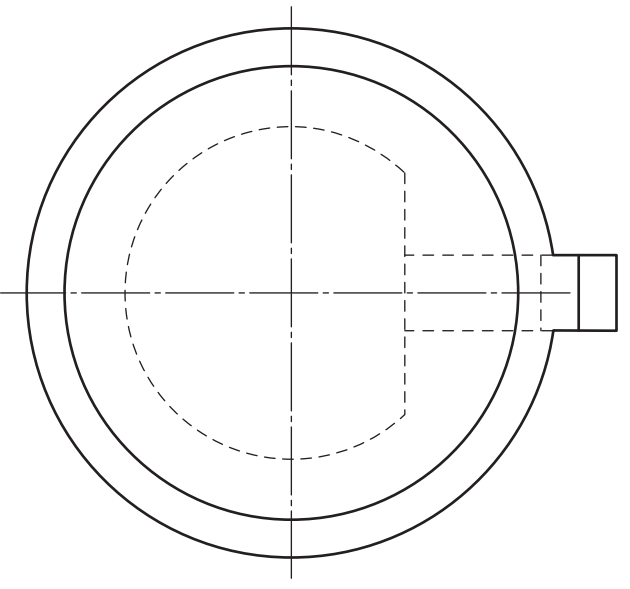
- (a) the elevation;
- (b) the plan.

Show hidden detail.

DA 6

DA 6

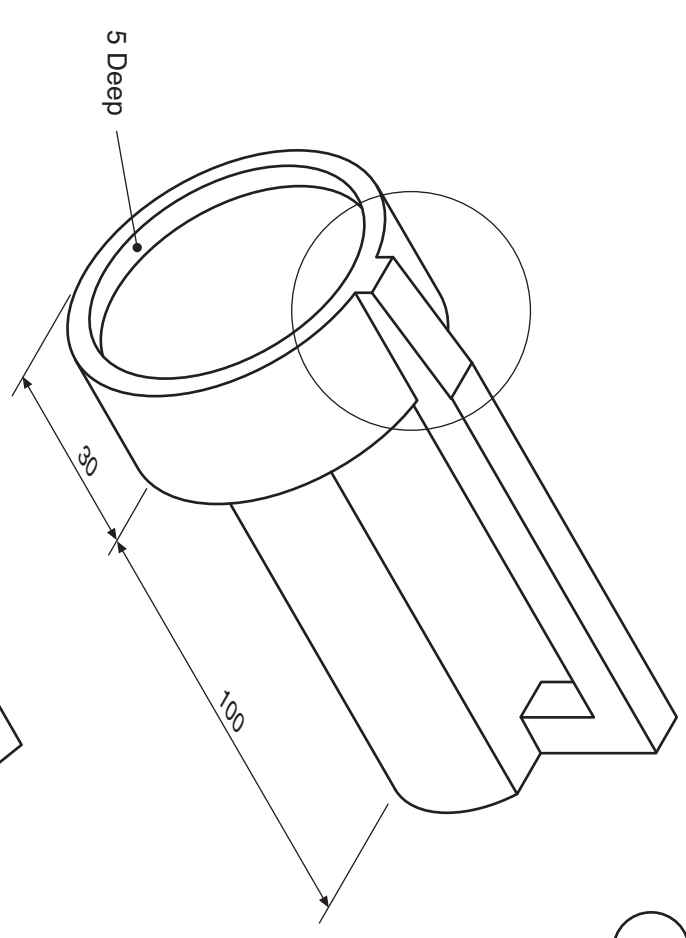
Total (DA 12)



END ELEVATION

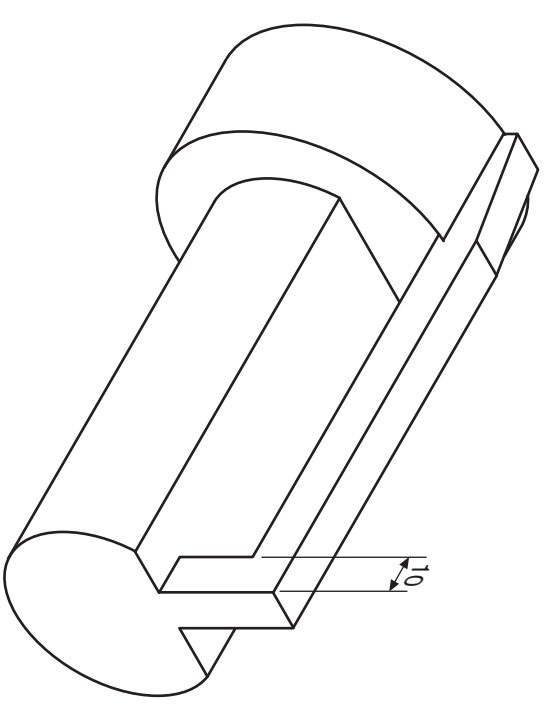


PLAN

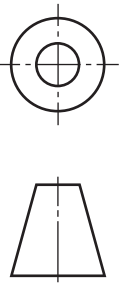


DETAIL: TORCH FRONT

NOT TO SCALE



ELEVATION



The elevation of the spout from a kettle based on a cone is given.

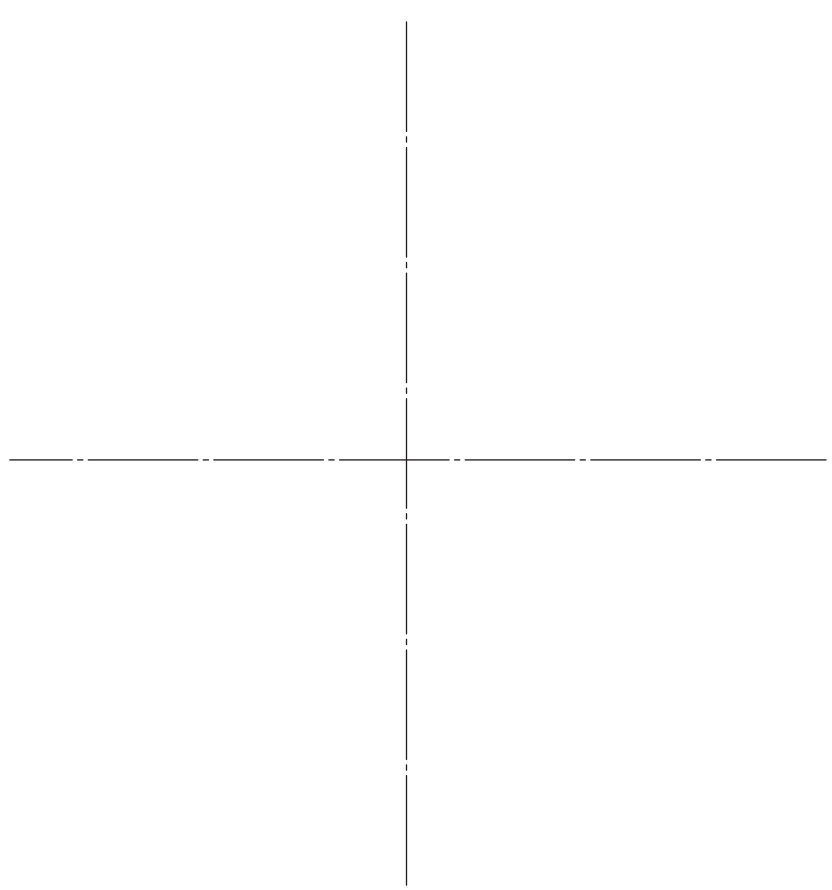
**Draw**, from the given elevation:

- (a) the plan;
- (b) the surface development.

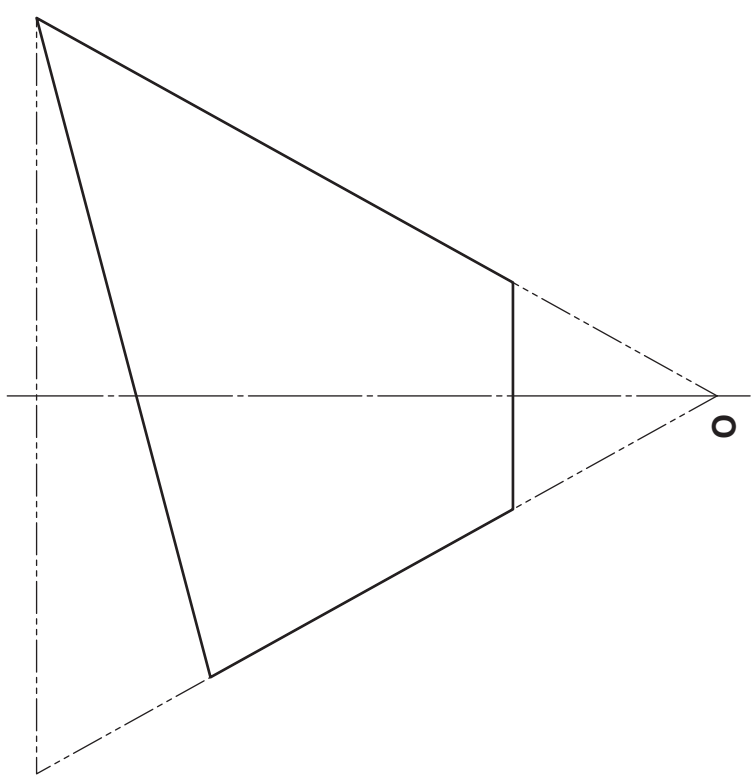
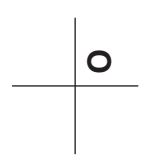
**DA 7**

**DA 7**

**Total (DA 14)**

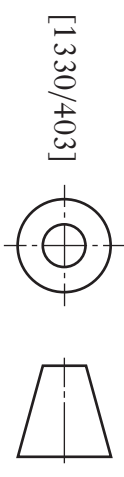


PLAN



ELEVATION

SURFACE DEVELOPMENT



[1330/403]

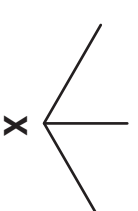
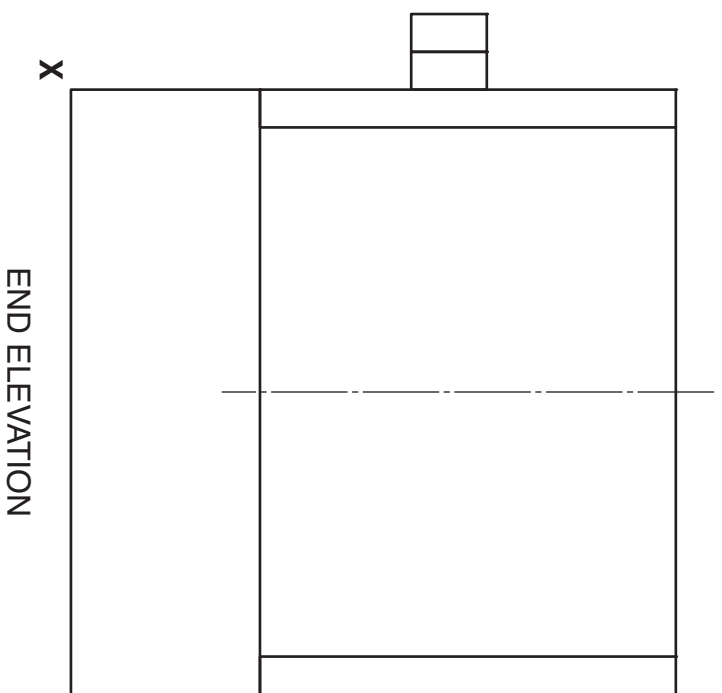
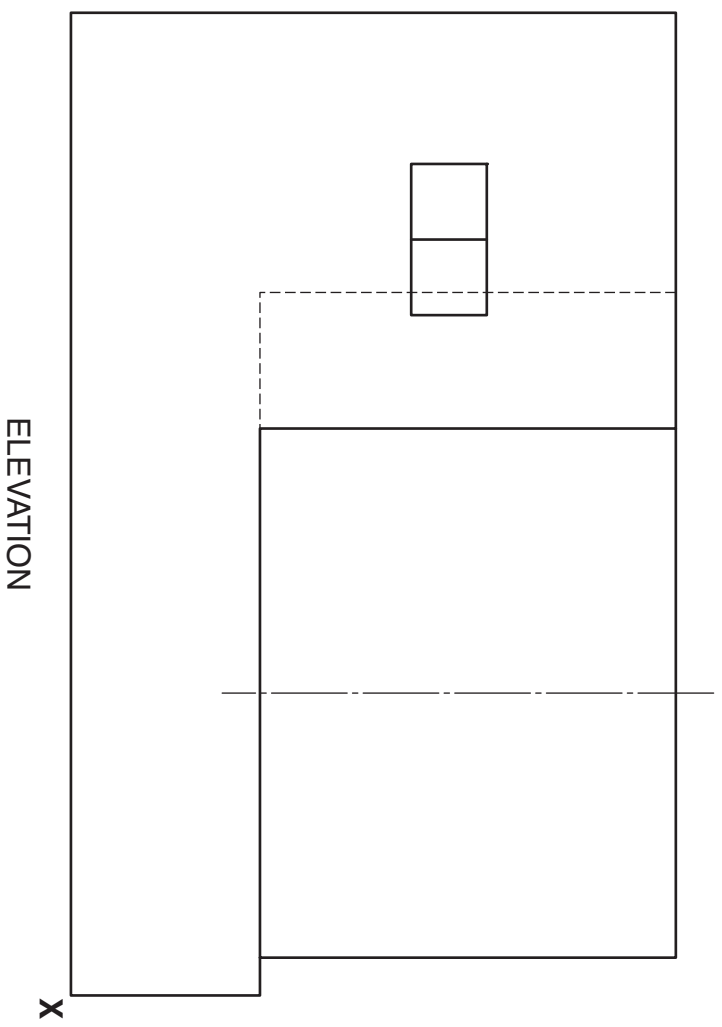
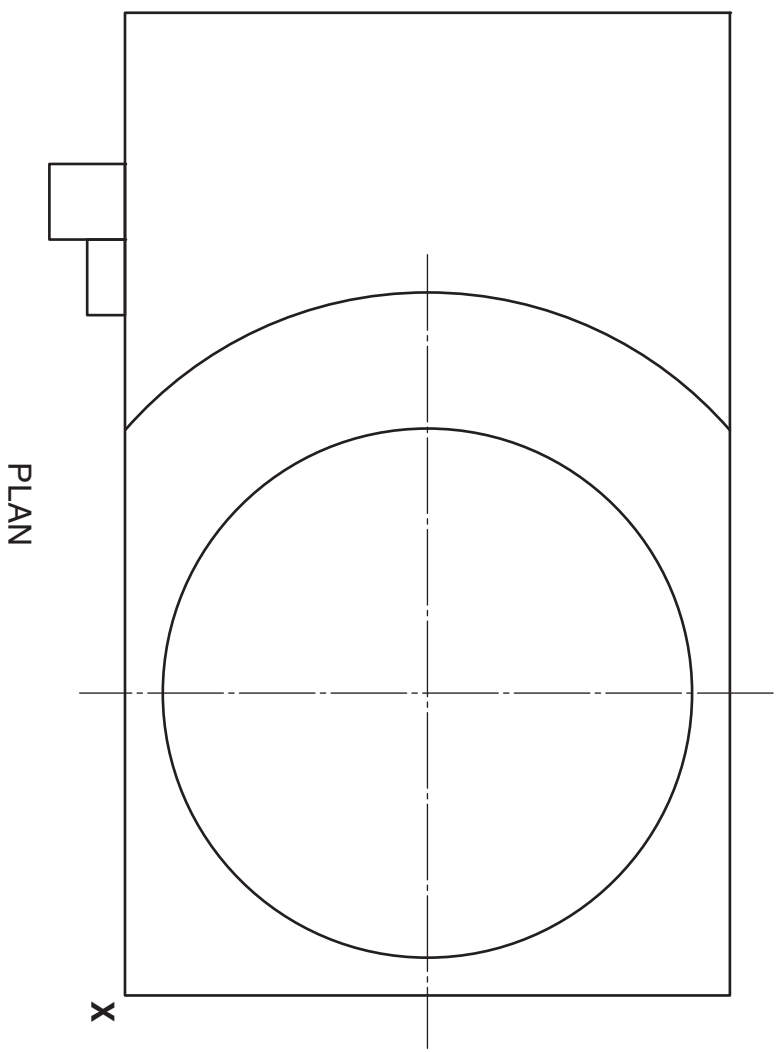


The elevation, end elevation and plan of a food mixer are given.

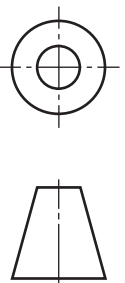
Draw, full size, an isometric view of the food mixer, using starting point X.

Do not show hidden detail.

Total (DA 16)



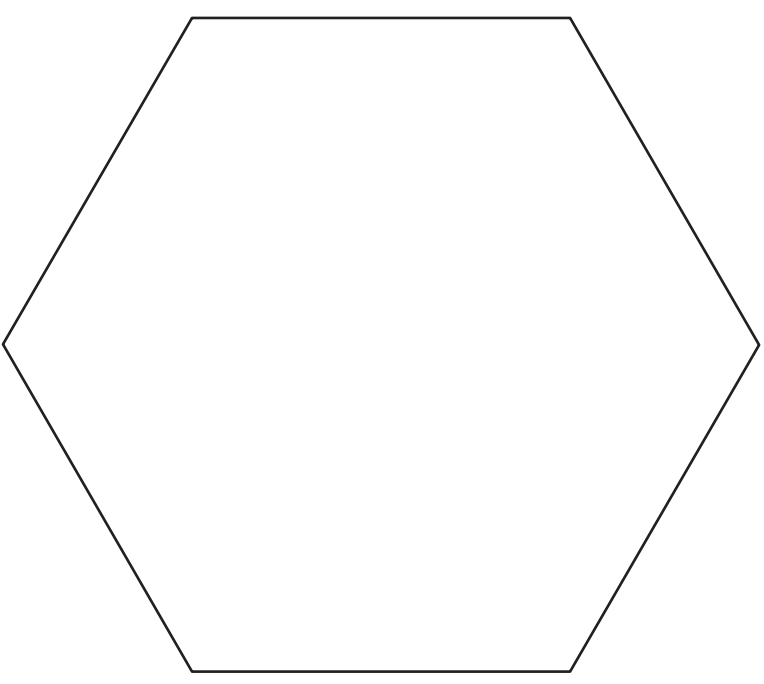
ISOMETRIC



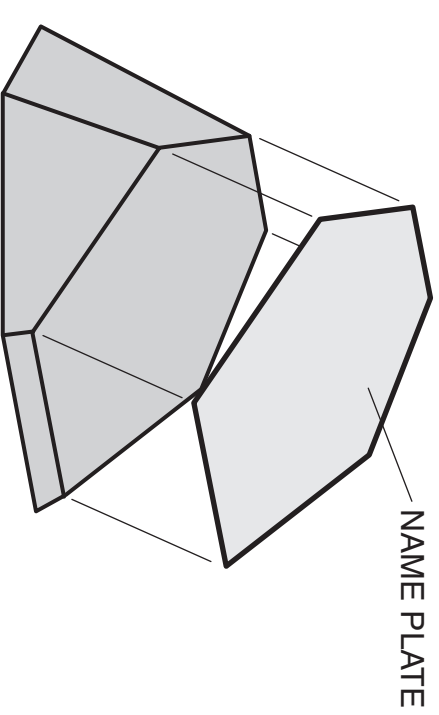
The elevation of a paperweight in the form of a hexagonal pyramid is given. A pictorial sketch of the paperweight is shown.

**Draw:**

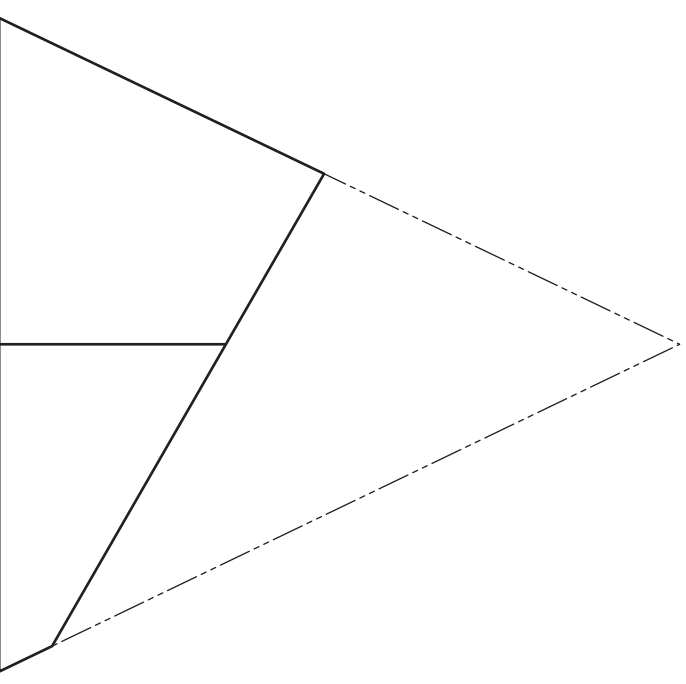
- (a) the plan of the paperweight projected from the elevation; DA 5
  - (b) the end elevation of the paperweight; DA 4
  - (c) the true shape of the name plate. DA 3
- Total (DA 12)**



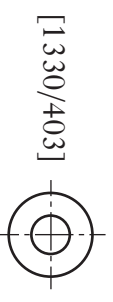
PLAN



TRUE SHAPE OF NAME PLATE



ELEVATION



[1330/403]

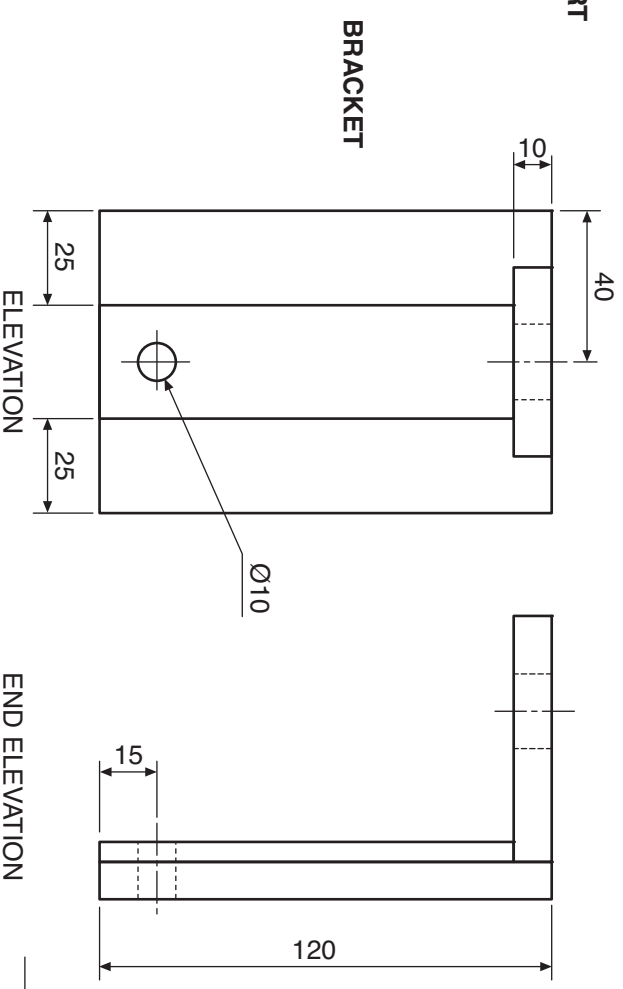
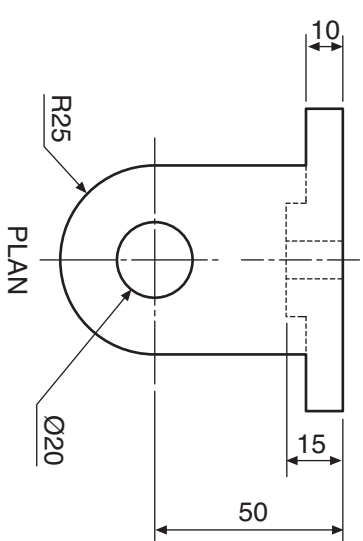
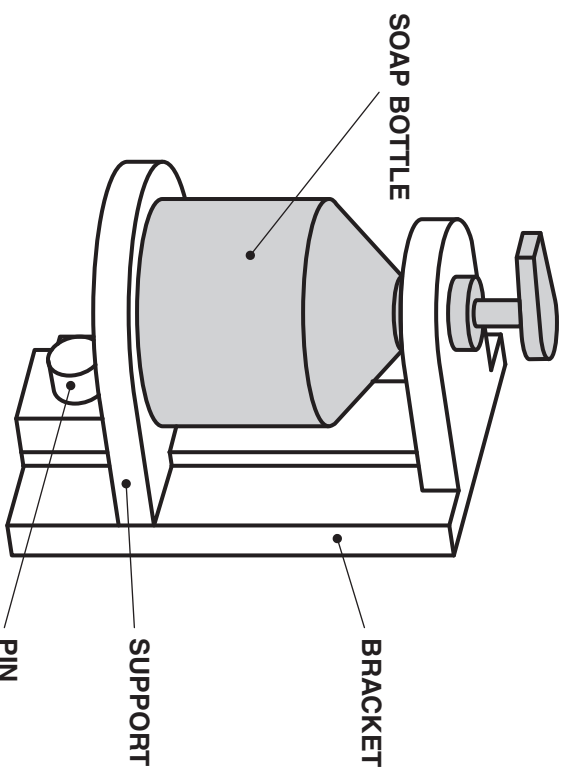
END ELEVATION

The orthographic views of the parts of a soap dispenser **holder** are given. A pictorial view of the assembled holder with the soap bottle is also shown.

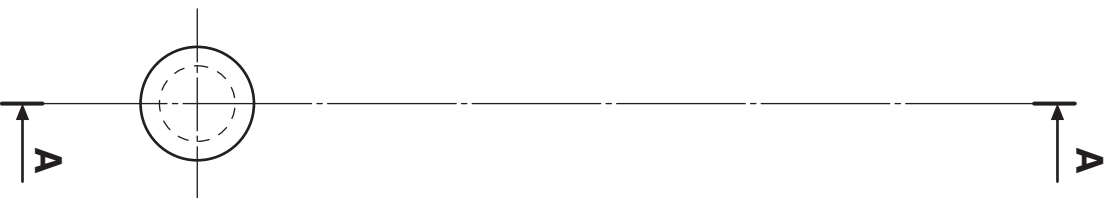
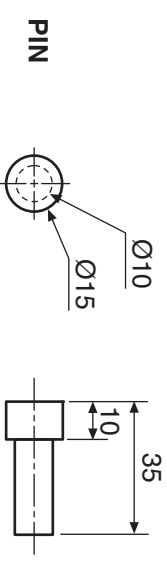
Draw, to the given sizes:

- (a) the elevation of the assembled holder; DA 6  
 (show hidden detail) Do not draw the soap bottle.
- (b) the sectional end elevation of the assembled holder on A-A. DA 10  
 (do not show hidden detail) Do not draw the soap bottle.

Total (DA 16)

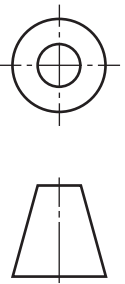
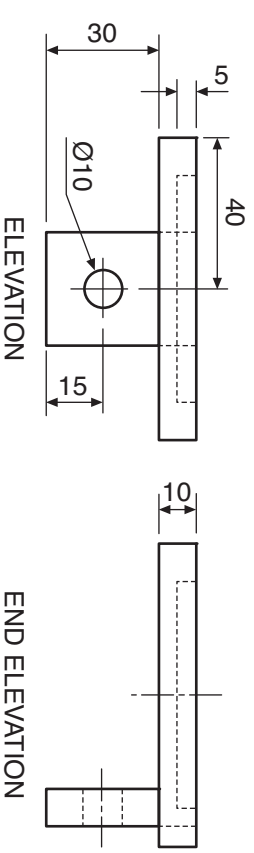
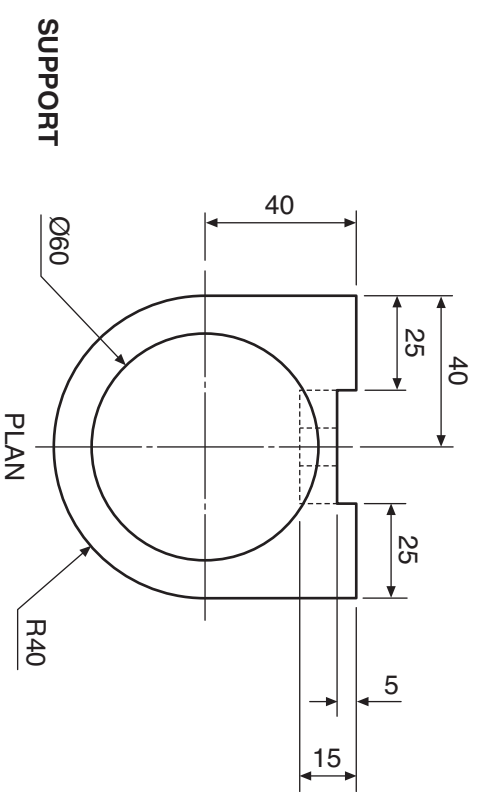


NOT TO SCALE



ELEVATION

SECTIONAL END ELEVATION ON A-A



## ACKNOWLEDGEMENTS

Question 2—Photograph of a Flight Centre store is reproduced by kind permission of Flight Centre Limited.