1 **(a)** The leaflet on the right shows the assembly instructions for a flat pack bedside table.

The leaflet is printed on both sides of an A4 sheet of paper and folded twice.

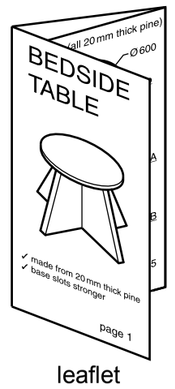
Complete the drawings below of the leaflet by:

(i) adding the missing letters to the word TABLE on page 1; [3]

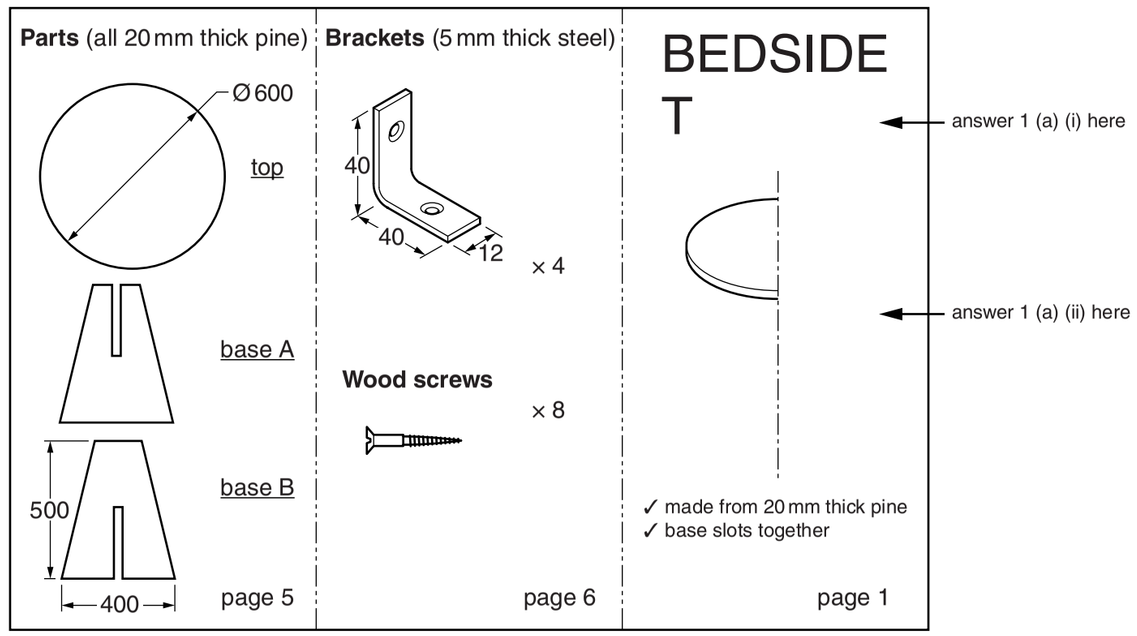
(ii) adding the right half of the sketch of the table on page 1; [3]

(iii) adding the missing illustration to the assembly instructions on page 2; [3]

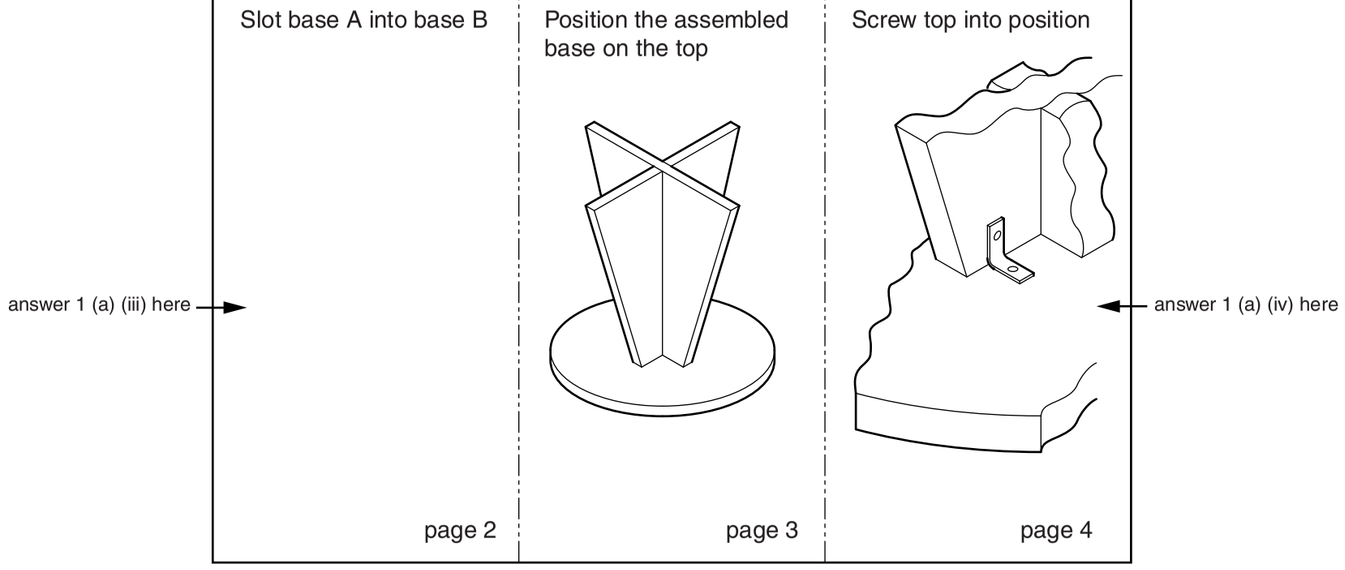
(iv) rendering the drawing on page 4 to look like pine. [3]



leaflet



side one of the leaflet



side two of the leaflet

(b) State the function of the assembly instructions leaflet.

.....

.....

.....[1]

(c) Complete the table below to show the production specification for the leaflet. [2]

Number to be printed	*200*
Paper size	*A4*
Paper weight	
Printing method	

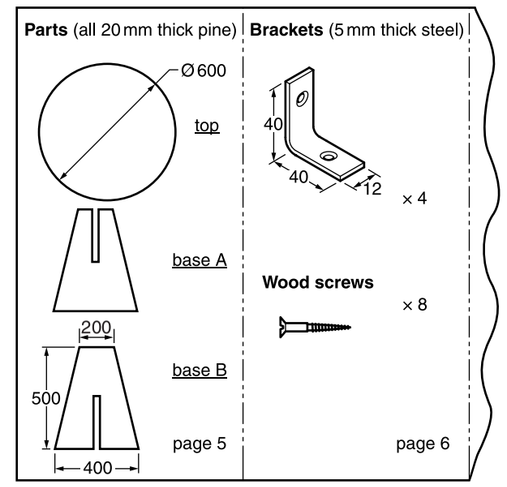
(d) The sizes of the parts of the bedside table are shown on page 5 and 6 of the leaflet. On the centre lines below draw to a scale of 1:5 the following orthographic views of the fully assembled bedside table:

(i) a front view; [8]

(ii) a plan. [2]

Estimate any dimensions not given.

Do **not** show hidden detail.



pages 5 and 6 of the leaflet

front view

plan

(e) In the space below draw the symbol to show the type of orthographic projection used in 1 (d). [3]

(f) Complete the table below to show the sizes of the materials required to make the bedside table. [2]

Part	Material	Length	Width	Thick	No.
Top	Pine	Ø600			1
Base A	Pine	500	400	20	1
Base B	Pine	500	400	20	1
Bracket	Steel	80		5	4

[Turn over

Cambridge O Level

Cambridge International Examinations
Cambridge Ordinary Level

CDT: DESIGN AND COMMUNICATION
Paper 1

No Additional Materials are required

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7048/01

October/November 2014
2 hours 30 minutes
plus 15 minutes reading time
DC (AC/SW) 85464/2

SHEET 1 OF 2 (SECTION 1)
Write your surname, other names, Centre number and candidate number in the spaces provided.
Answer **one** question only from Section 1 (Questions 1 and 2).
Answer **two** questions only from Section 2 (Questions 3 to 6).
Answer the questions in the spaces provided.
All construction and projection lines must be clearly shown.
All dimensions are in millimetres unless otherwise stated.
The number of marks is given in brackets [ ] at the end of each question or part question.
DO **NOT** WRITE IN ANY BARCODES.

Candidate Surname .....

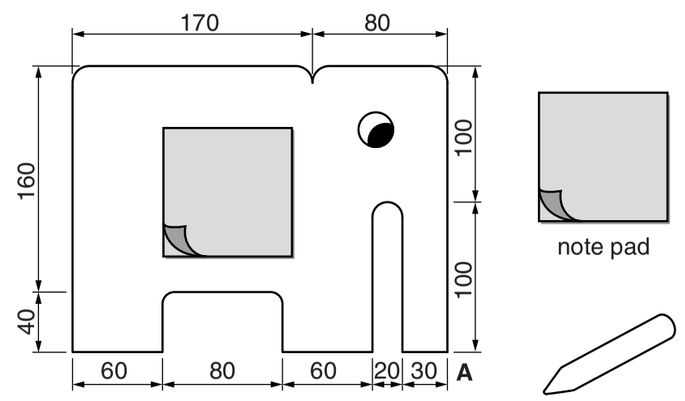
Other Names .....

Centre Number .....

Candidate Number .....

Examiner's use only

2 The parts of a wall mounted kitchen 'jotter' are shown on the right. The note pad is attached to the acrylic back. The 'jotter' also has a pen.



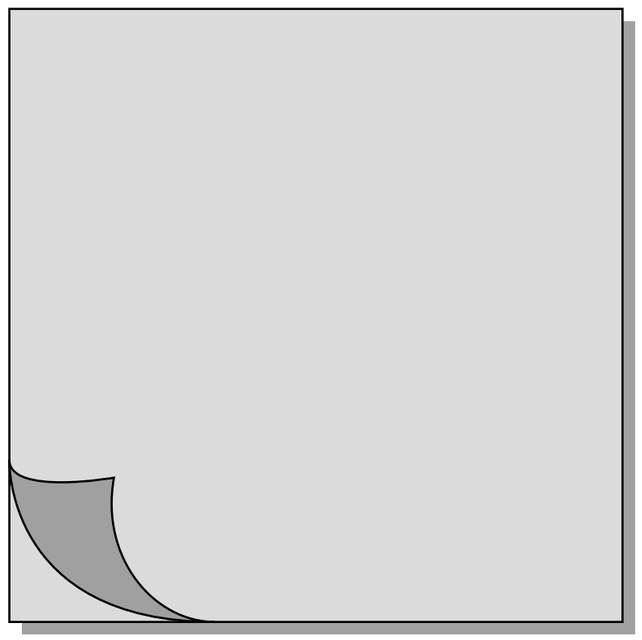
acrylic back

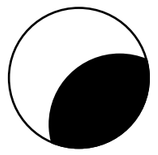
note pad

pen

parts of the kitchen 'jotter'

(a) In the space below complete the full size drawing of the shape of the acrylic back from the start point **A**. All the curved corners are R10 [12]





A

(b) State **two** methods of joining the note pad to the acrylic back. [2]

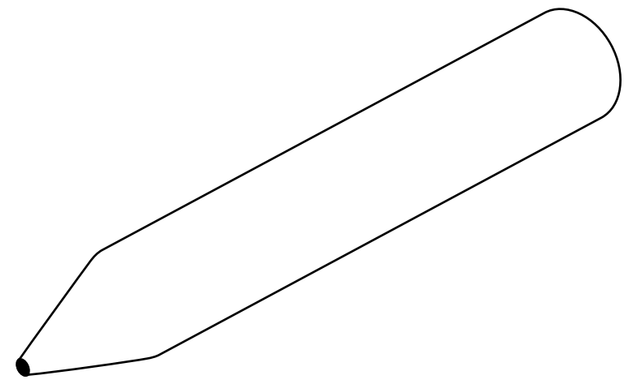
1. .....

2. .....

(c) The note pad runs out very quickly. Name a type of pen or pencil that can be used to write directly onto the acrylic back. [1]

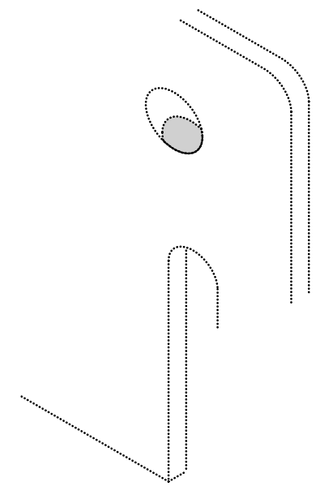
.....

(d) An outline drawing of the pen supplied with the kitchen 'jotter' is shown below. Render the drawing of the pen to look like shiny plastic. [3]



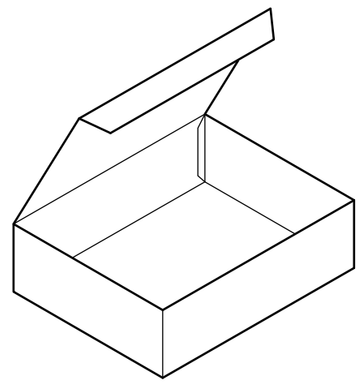
outline drawing of the pen

(e) The end of the elephant's trunk is modified to form a holder for the pen. In the space below complete the isometric sketch to show a design for the modified end of the trunk. [4]



end of elephant's trunk

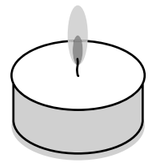
(f) In the space below, complete the sketch of the one piece development (net) for a box to hold the kitchen 'jotter'. The design must allow the eye of the elephant to be visible when the box is closed. [8]



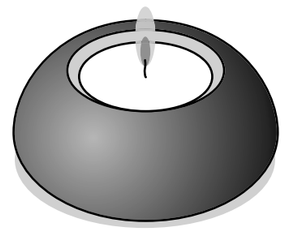
box for the kitchen 'jotter'

base of box

3 A candle and candle holder are shown on the right.



candle



candle holder

(a) Complete the table below by:

(i) naming the shape of the first candle holder; [1]

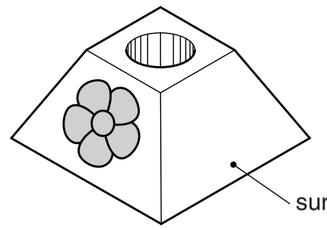
(ii) producing 3D sketches of the other three candle holders. [7]

.....	triangular prism	hexagonal prism	truncated cone

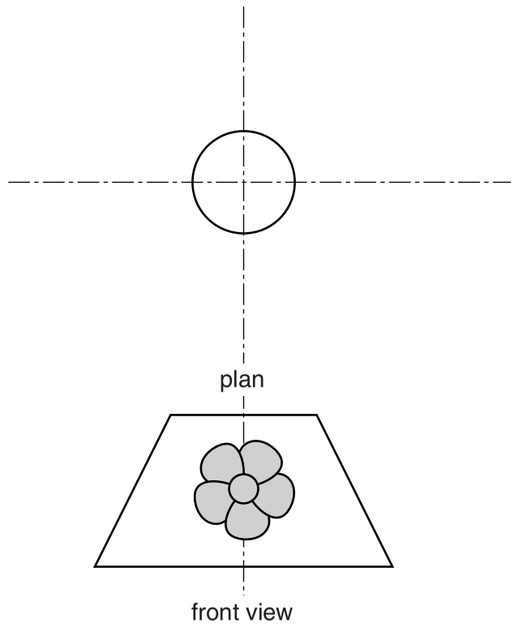
(b) A sketch of a truncated square based pyramid candle holder is shown on the right.

(i) Complete the plan view of the candle holder. [6]

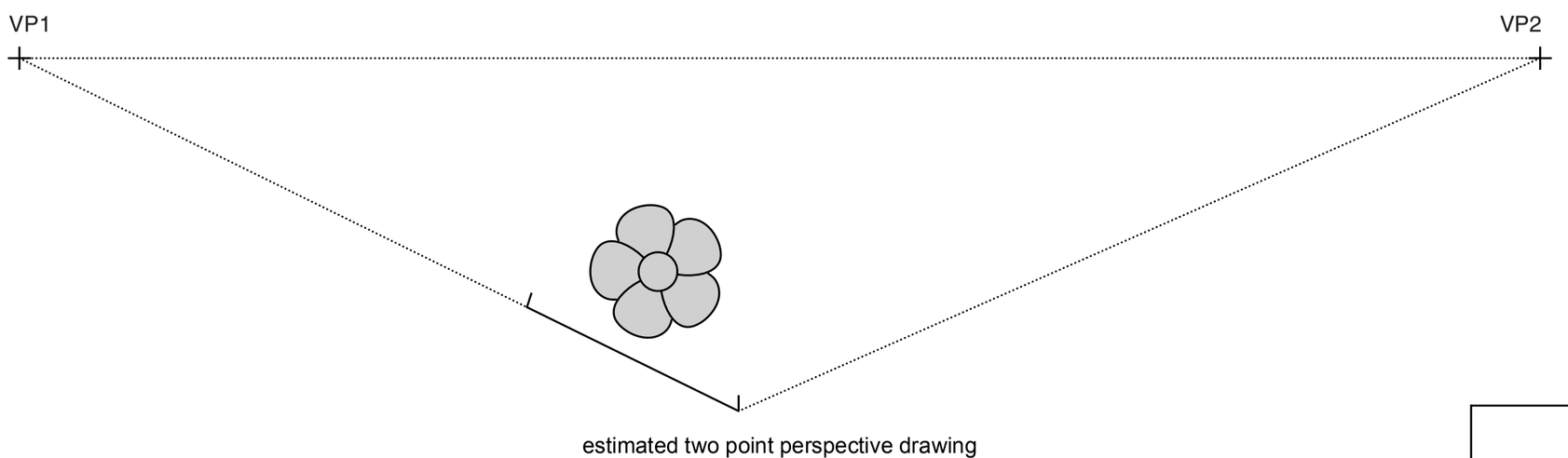
(ii) Project the true shape of surface **X** from the front view to the space on the right. [4]



truncated square based pyramid candle holder



(c) In the space below complete the estimated two point perspective drawing of the truncated square based pyramid candle holder. [7]



estimated two point perspective drawing

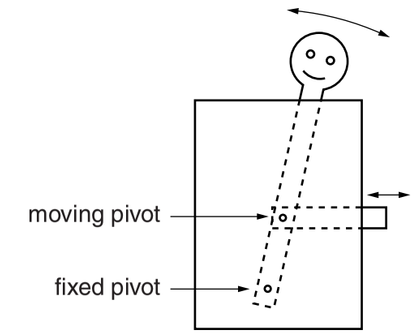
4 **(a)** A birthday card with a mechanism is shown on the right. Complete the drawings of the three cards below by adding a mechanism to:

(i) card A that will make X move out when Y is pulled; [3]

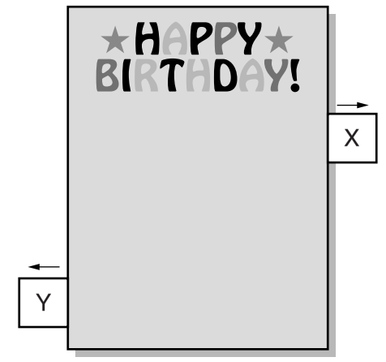
(ii) card B that will make X appear in the bottom window; [3]

(iii) card C that will make X and Y move from side to side when Z is pushed and pulled. [4]

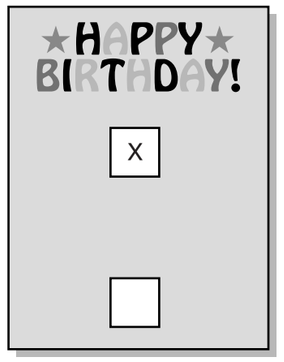
Label **all** pivots and use arrows to show the direction of movement.



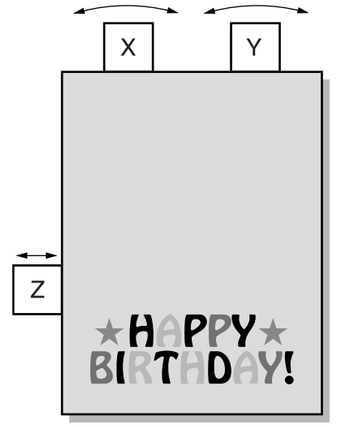
card with a mechanism



card A



card B



card C

(b) The sales of cards A, B and C in 2013 are shown in the table below.

	card A	card B	card C
Sales	6000	8500	4500

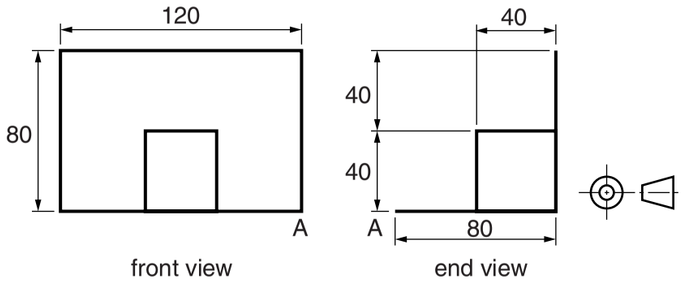
(i) In the space below draw a bar chart to show the sales of card A, B and C in 2013. Use colour and labels to enhance the appearance of the bar chart. [5]

(ii) A bar chart is one method of graphically presenting data. Name **two** other methods of graphically presenting data. [2]

1. .....

2. .....

(c) Orthographic views of a mechanism for a pop up card are shown below.



(i) Draw a scale 1:2 isometric view of the pop up card from the start point A. [6]

(ii) Use thick and thin line technique to enhance the appearance of the isometric drawing of the mechanism for the pop up card. [2]

• A

[Turn over

Cambridge O Level

Cambridge International Examinations
Cambridge Ordinary Level

CDT: DESIGN AND COMMUNICATION
Paper 2

No Additional Materials are required

7048/01
October/November 2014
2 hours 30 minutes
plus 15 minutes reading time
DC (AC/SW) 85467/2

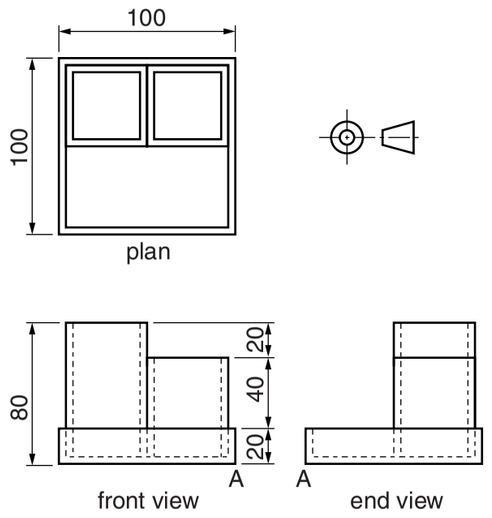
SHEET 2 OF 2 (SECTION 2)
Write your surname, other names, Centre number and candidate number in the spaces provided.
Answer **one** question only from Section 1 (Questions 1 and 2).
Answer **two** questions only from Section 2 (Questions 3 to 6).
Answer the questions in the spaces provided.
All construction and projection lines must be clearly shown.
All dimensions are in millimetres unless otherwise stated.
The number of marks is given in brackets [ ] at the end of each question or part question.
DO **NOT** WRITE IN ANY BARCODES.

Candidate Surname .....
Other Names .....
Centre Number .....
Candidate Number .....

Examiner's use only

5 Orthographic views of an acrylic desk tidy are shown on the right. The three parts of the desk tidy are a square tray, a large square tube and a small square tube. All the parts are made from 4mm thick acrylic.

(a) On the start point A draw a scale 1:2 planometric view (45°/ 45°) of the fully assembled desk tidy. Estimate any dimensions not given. [14]

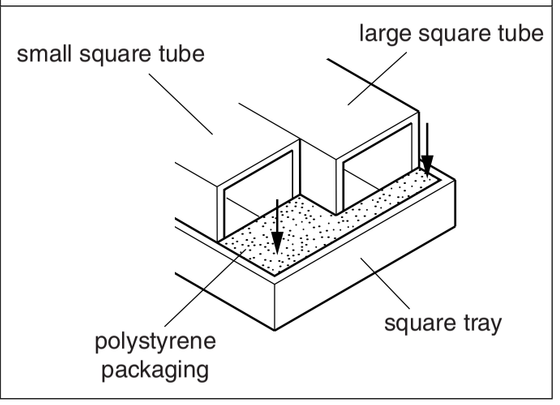


orthographic views of the desk tidy

● A

planometric view of the desk tidy

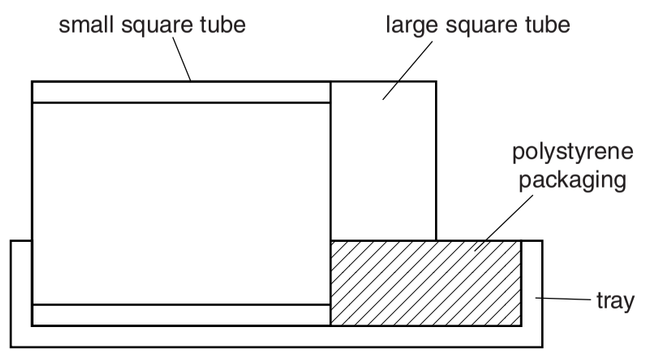
(b) Complete the table below to show the three stages in getting the desk tidy ready for packaging. [6]

Lay the large square tube on its side and place in the square tray	
Lay the small square tube alongside the large square tube	
Insert the polystyrene packaging to stop the two square tubes moving around in the tray	

(c) Complete the table below to show the overall sizes of the desk tidy when ready for packaging. [2]

Length	*100mm*
Width	
Height	

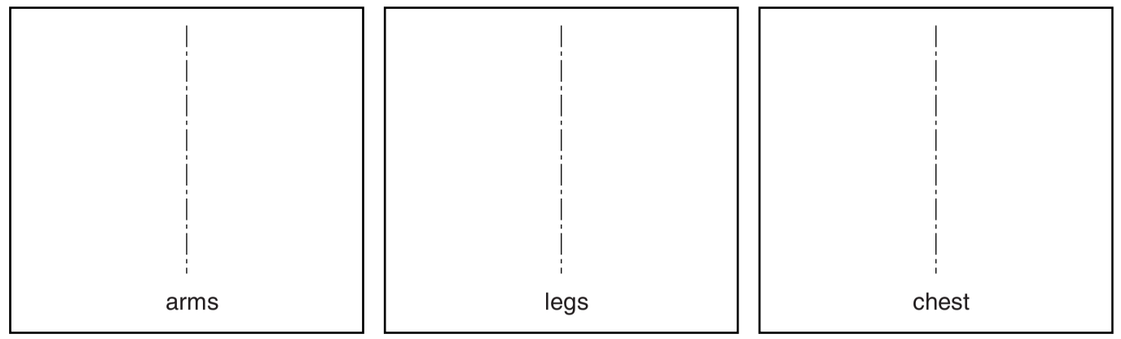
(d) Complete the sketch below by adding cross hatching to the tray and small tube. [3]

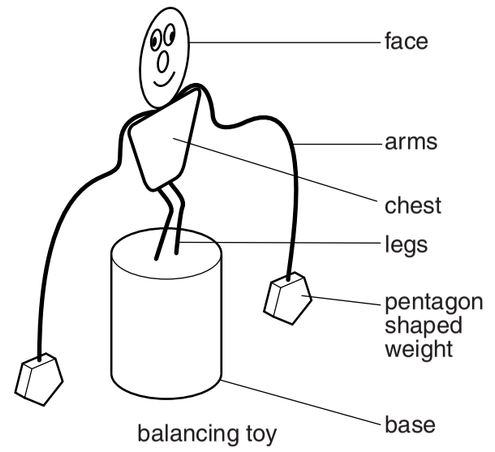


sectional view of the desk tidy

6 A sketch of a balancing toy is shown on the right. The body is made from metal wire with a weight at the end of each arm, the base from stainless steel bar and the face from sheet metal.

(a) In the boxes below sketch the shapes of the three pieces of wire required to make the body. [6]

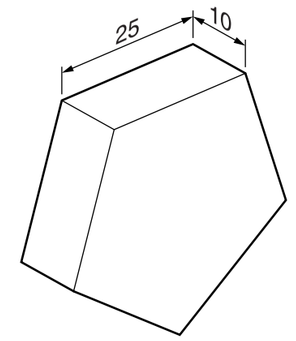




balancing toy

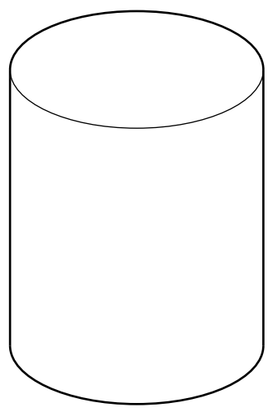
(b) A sketch of one of the regular pentagon shaped weights is shown on the right.

Draw full size orthographic front and plan views of one weight on the centre line below. [7]



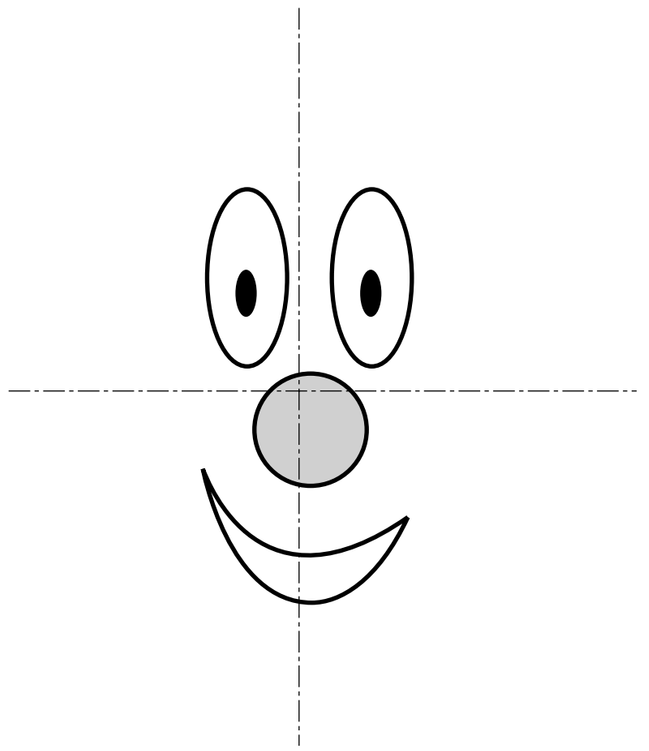
regular pentagon shaped weight

(c) Render the drawing of the base below so that it appears like stainless steel. [4]



base of balancing toy

(d) The face of the balancing toy is made from an elliptical shaped piece of sheet metal. The ellipse has a major axis of 100mm and a minor axis of 60mm. Construct the ellipse on the centre lines below. [8]



face of balancing toy