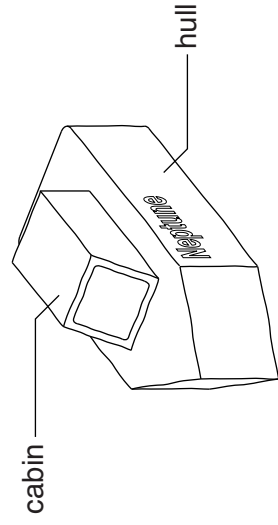


**Section A**

Answer all questions in this section.

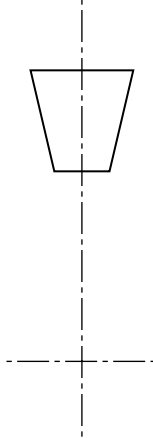
**A1** A sketch of a model boat is shown below.



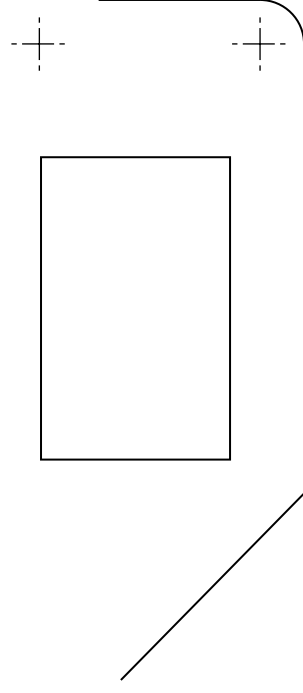
In the space below complete:

**(a)** the plan and end view of the model boat; [8]

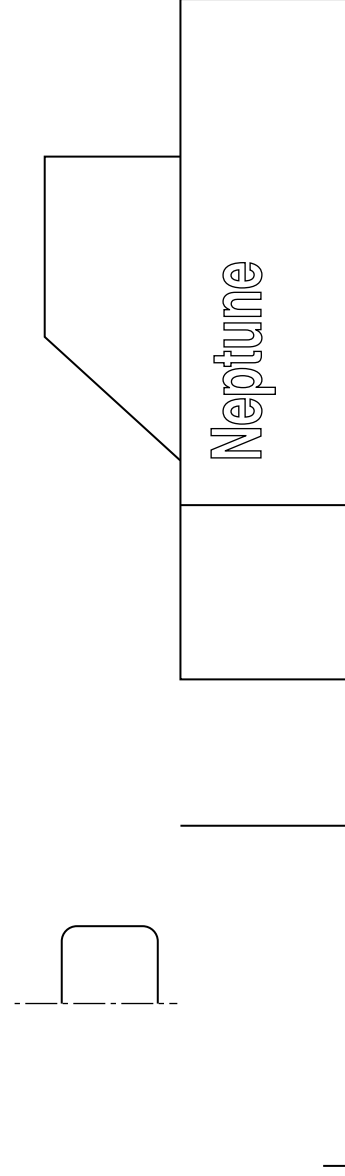
**(b)** the third angle projection symbol. [2]



third angle projection symbol



plan



end view

side view

orthographic views of the boat

**0445/23** Oct/Nov 2014 **1 hour**  
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Centre Number .....

Candidate's Number .....

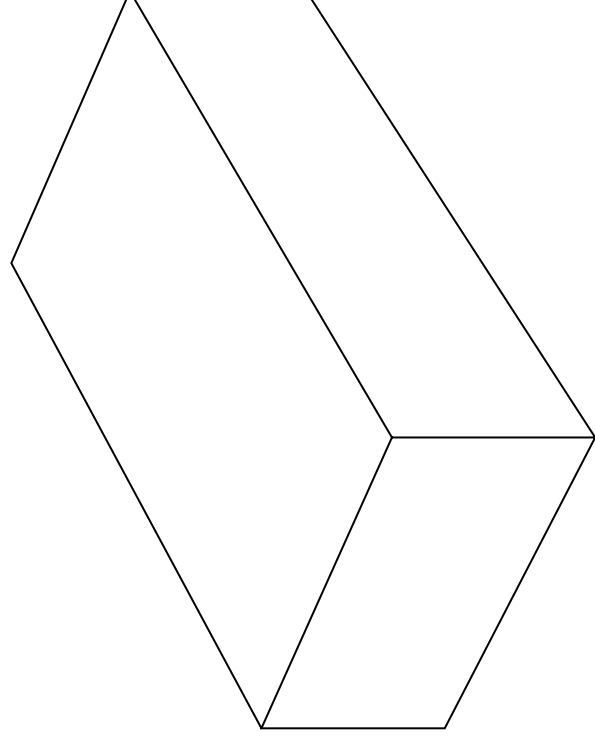
Candidate's Surname .....

Other Names .....

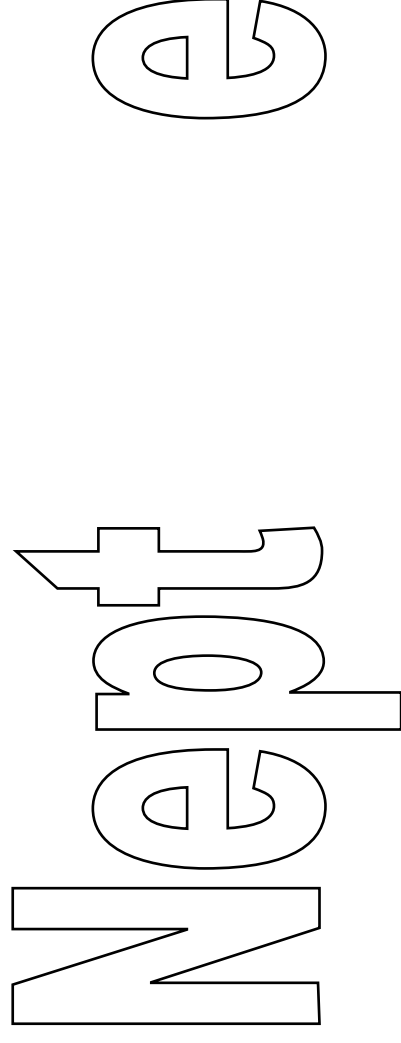
[Turn over

**A2 (a)** The model boat is to be made from a block of wood.

Add colour/shading to the drawing of the block below to make it look like wood. [3]

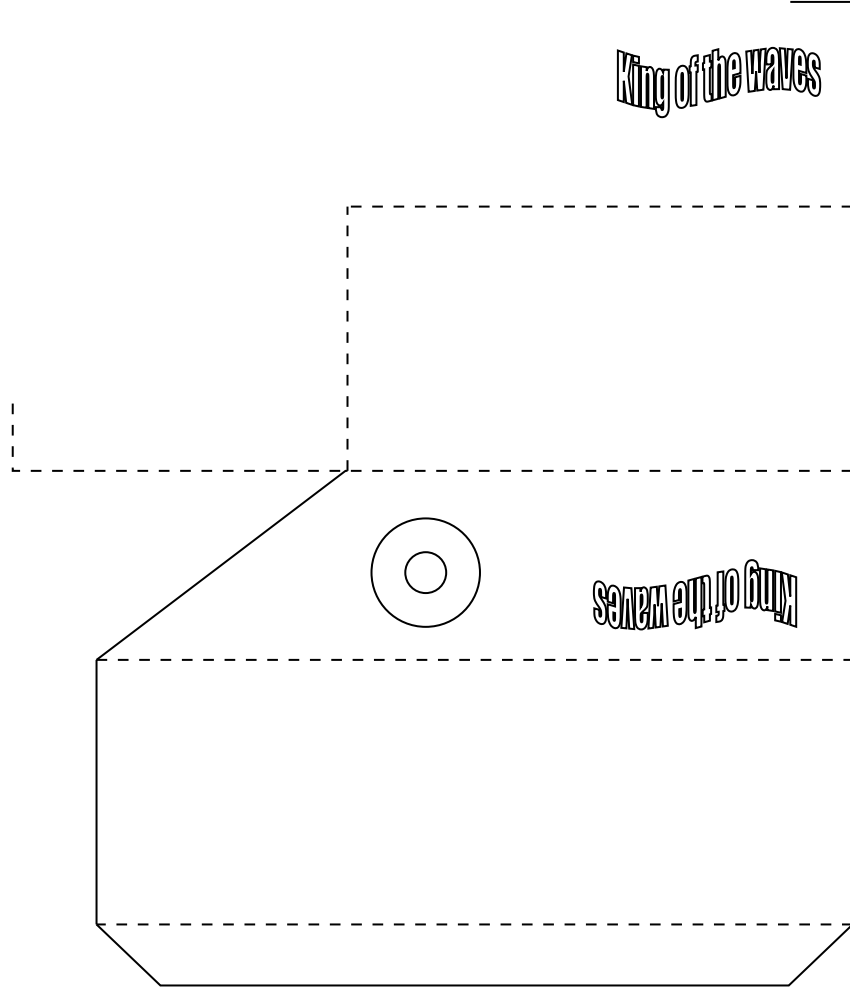
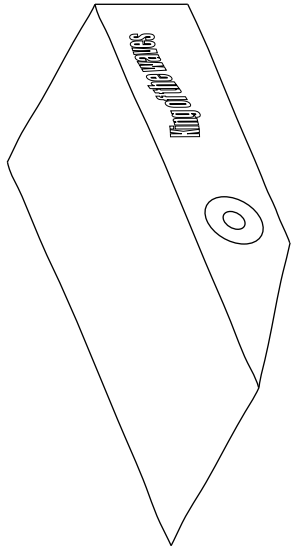


**(b)** The name Neptune is written on the hull of the model boat. Complete the drawing below to show the name of the model boat. [3]

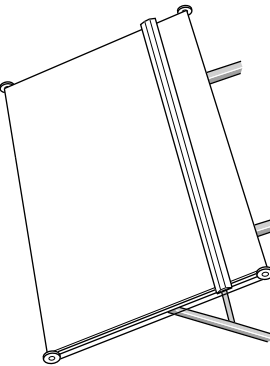
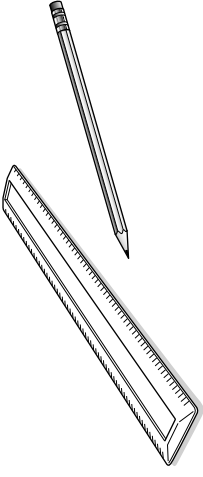


For  
Examiner's  
use


**A3 (a)** The model boat below is to be made from thin card. In the space below complete the one-piece development (net) required to make the model boat. Include all glue tabs and clearly show fold lines. [5]



**(b)** Complete the table below to show the equipment required to draw the development (net) of the model boat on thin card.

Equipment required to draw the development (net) on thin card	
1. .... [1]	
2. Pencil and rule	
3. Set square	[1]

**(c)** Name a method of printing 10 000 colour copies of the development (net) required to make the model boat and give **one** reason for your choice of printing method.

Method ..... [1]  
Reason .....  
.....  
..... [1]

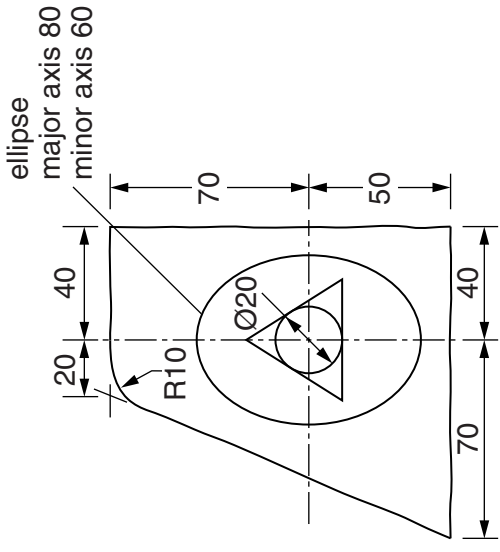
development (net) of the model boat

**Section B**  
Answer either question B4 or B5.

**B4 (a)** A model of the tail of an aeroplane is to be used to promote an airline. A sketch of the model of the tail of the aeroplane and the airline logo are shown on the right.

On the centre lines on the right construct, full size:

- (i) the logo; [10]
- (ii) the outline shape of the tail of the aeroplane. [8]



**(b)** The outline shape of the tail of the aeroplane is to be made from foam board and the logo design printed on paper.

Complete the table below to show:

<b>(i)</b> the tools and equipment required for cutting out the foam board shape; [3]	1. .... 2. .... 3. ....
<b>(ii)</b> a method of attaching the paper logo design to the foam board. [1]	.....

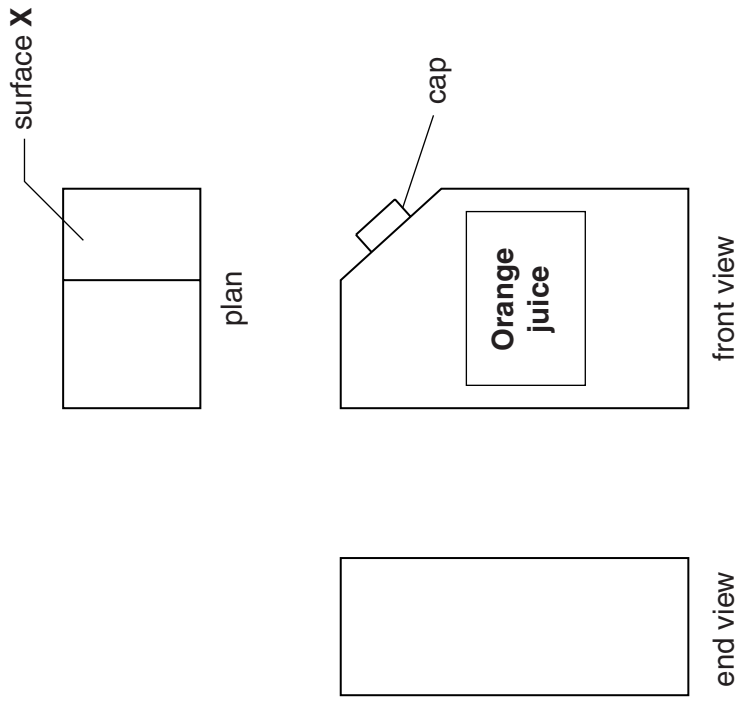
**(c)** The foam board tail of the aeroplane is to stand in an upright position on a flat surface.  
In the space below use sketches and notes to show a modification to the outline shape of the tail of the aeroplane that will allow it to stand in an upright position on a flat surface. [3]

**B5 (a)** Orthographic views of a juice carton with a round cap are shown below.

On the orthographic views:

(i) add the round cap to the plan; [3]

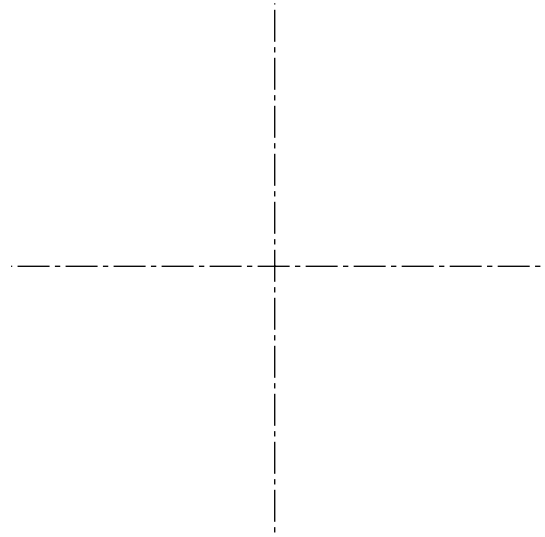
(ii) project the true shape of surface X from the front view. Do **not** include the cap. [4]



**(b)** The sales figures for four different types of juice are shown below.

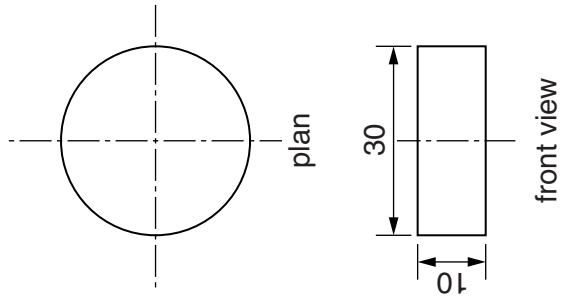
	Lemon	Orange	Mango	Apple
Sales	15000	90000	45000	30000

On the centre lines below draw a pie chart to show the sales figures for the four different types of juice. Use colour/shading and labels to enhance the appearance of the pie chart. [5]



**(c)** Orthographic views of the round cap for the juice carton are shown below.

In the space below draw a scale 2:1 isometric view of the cap. [10]



**(d)** Complete the list below to show four specification points for the juice carton. [3]

1. The carton must be able to contain a liquid.

2. ....

3. ....

4. ....