

NAME \_\_\_\_\_ INDEX NUMBER \_\_\_\_\_

SCHOOL \_\_\_\_\_ DATE \_\_\_\_\_

## COMMON SOLIDS AND NETS

	<p>KCSE 1989 – 2012 Form 1 Mathematics</p> <p>Answer all the questions</p>	Working space
1.	<p><b>1997 Q 10 P2</b></p> <p>On the surface of a cuboid ABCDEFGH a continuous path BFDHB is drawn as shown by the arrows below.</p> <div style="text-align: center;"> </div> <p>(a) Draw and label a net of cuboid                      (b) On the net show the path</p>	
2.	<p><b>1999 Q 8 P2</b></p> <p>The figure below shows a solid made by passing two equal regular tetrahedral.</p> <div style="text-align: center;"> </div> <p>(a) Draw a net of the solid                      (b) If each face is an equilateral triangle of side 5cm, find the surface area of the solid</p>	

3.

**2001 Q 5 P2**

The figure below shows a net of a prism whose cross - section is an equilateral triangle.

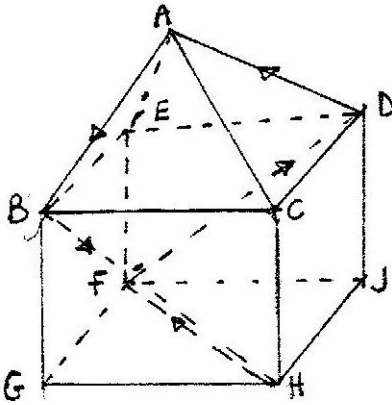


- a) Sketch the prism
- b) State the number of planes of symmetry of the prism.

4.

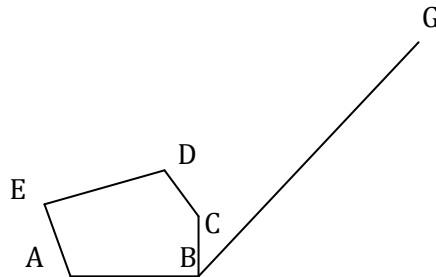
**2002 Q 6 P2**

The figure below represents a square based solid with a path marked on it.

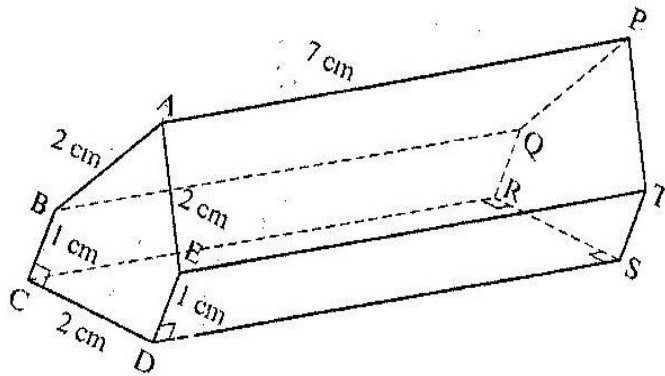


Sketch and label the net of the solid.

5. **2004 Q 11 P2**  
 In the figure below ABCDE is a cross-section of a solid. The solid has uniform cross-section. Given that BG is a base edge of the solid, complete the sketch, showing the hidden edges with broken lines.

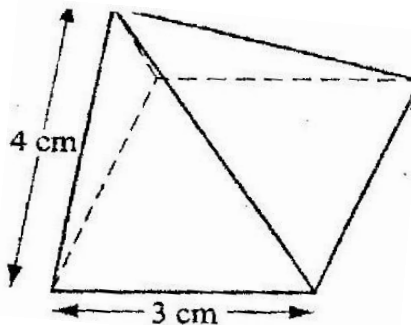


6. **2005 Q 15 P2**  
 The figure below represents a prism of length 7 cm  $AB = AE = CD = 2$  cm and  $BC - ED = 1$  cm



Draw the net of the prism (3 marks)

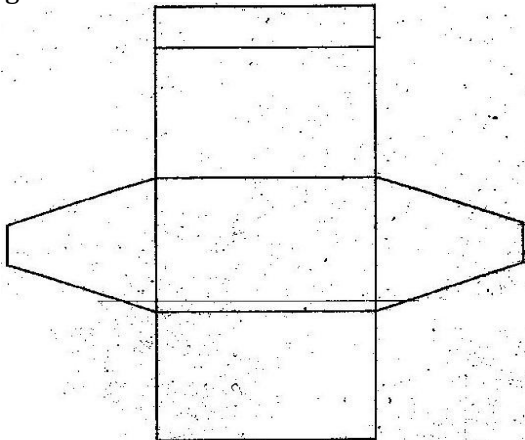
7. **2006 Q 13 P1**  
 The diagram below represents a right pyramid on a square base of side 3 cm. The slant of the pyramid is 4 cm.



- (a) Draw a net of the pyramid (2 marks)
- (b) On the net drawn, measure the height of a triangular face from the top of the Pyramid (1 mark)

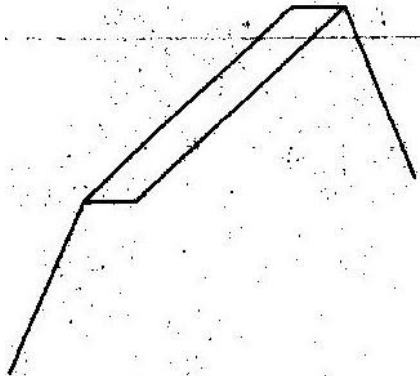
8. 2008 Q 5 P1

The figure below shows a net of a solid



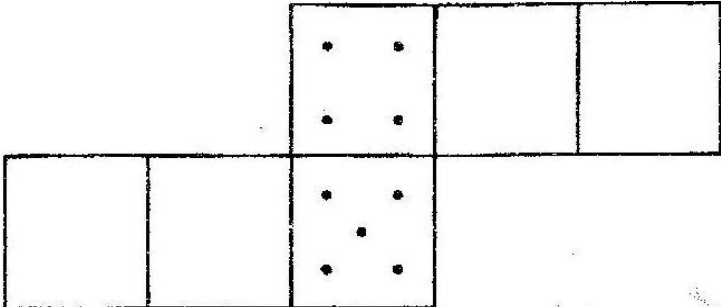
Below is a part of the sketch of the solid whose net is shown above.

Complete the sketch of the solid, showing the hidden edges with broken lines. (3 marks)



9. 2010 Q 9 P1

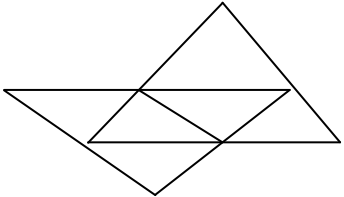
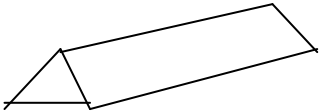
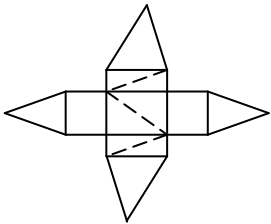
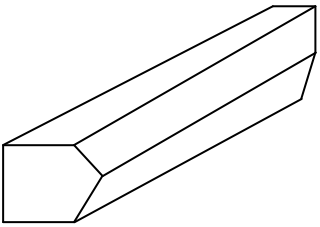
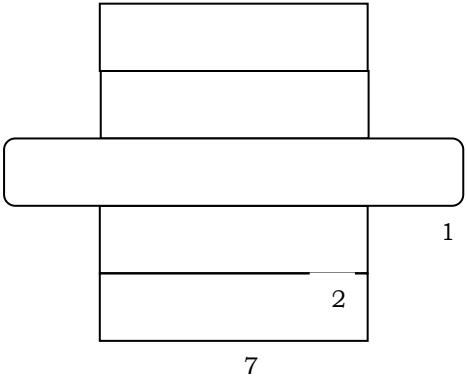
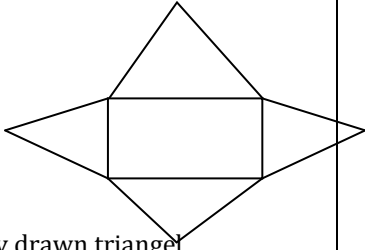
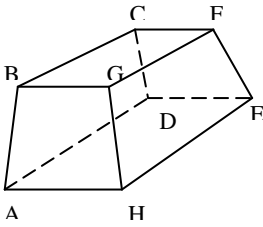
The figure below is a net of a cube with some dots on two faces.



Given that the number of dots on pairs of opposite faces adds up to 7, fill in appropriate dots in each of the empty faces. (2 marks)



## COMMON SOLIDS AND NETS MARKING SCHEME

1.	<p>Any drawn an labelled net of a net of a cuboid (condone net of a cube  <math>\sqrt{\text{path}}</math> drawn  all<math>\sqrt{\text{directions}}</math>  (condone a net of cube award first  B1 . diffe, net 12mm  <span style="float: right;"><b>1997Q10</b></span></p>	<p>B1  B1    B1  3  marks</p>	
2.	<div style="text-align: center;">  </div> <p style="margin-top: 10px;"> Area one = <math>\frac{1}{2} \times 5 \times 5 \sin 60^\circ</math>  Area of 6 = <math>6 \times \frac{1}{2} \times 5 \times 5 \times 0.8660</math>  Or <math>\frac{1}{2} \times 5 \times 4.33 \times 6 \times \frac{1}{2} \times 5 \times 5 \times 3 \times 6</math>  = <math>64.95</math> or <math>\frac{\sqrt{75}}{2}</math>  <span style="float: right;"><b>1999Q8</b></span></p>	<p>M1  A1    3  marks</p>	
3.	<p>a).</p> <div style="text-align: center;">  </div> <p style="margin-top: 10px;"> b) Four (4) planes of symmetry.  <span style="float: right;"><b>2001Q5P2</b></span></p>	<p>B2  B1    3  marks</p>	
4.	<div style="text-align: center;">  </div> <p style="text-align: right; margin-top: 10px;"><b>2002Q6</b></p>	<p>B1    B1    2  marks</p>	
5.	<div style="text-align: center;">  </div> <p style="text-align: right; margin-top: 10px;"><b>2004Q11</b></p>		
	<div style="text-align: center;">  </div> <p style="text-align: right; margin-top: 10px;"><b>2005Q15</b></p>	<p>B1  M1    2    1  B1  M1  A1</p>	
	<p>a).</p> <div style="text-align: center;">  </div> <p style="margin-top: 10px;"> B<sub>1</sub> by drawn triangle  B<sub>1</sub> net  B<sub>1</sub> 3.7  b). 3.7 + 0.1 cm  <span style="float: right;"><b>2006Q13</b></span></p>		
	<p>8.</p> <p>CD parallel and equal is AB  GH parallel and equal to FE  Completion of sketch with  hidden edges dotted</p> <div style="text-align: center;">  </div> <p style="text-align: right; margin-top: 10px;"><b>2008Q5</b></p>	<p>B1    B1    B1  3  marks</p>	

