

TB(1A) Ch. 6 Introduction to Geometry Conventional Questions

1. [13-14 Standardized Test 2 Q4]

Figure 3 shows the 2-D representation of a prism on the isometric grid paper. Draw the 2-D representation of the prism on the oblique grid. **(2 marks)**

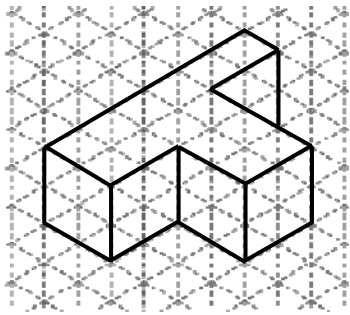
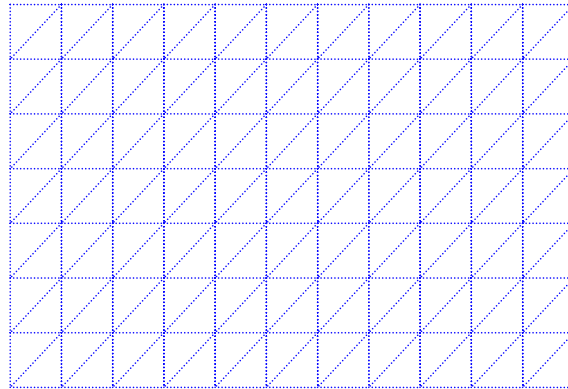
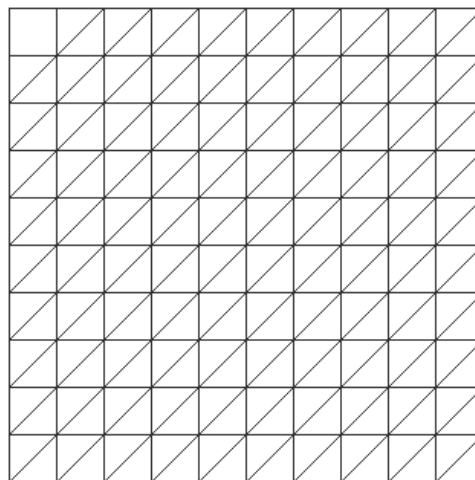
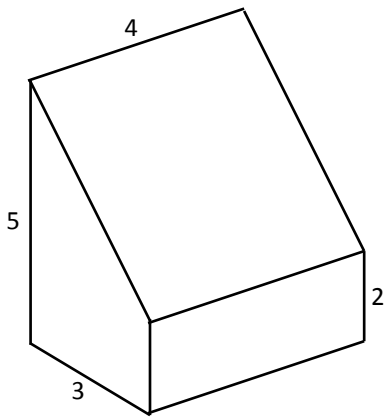


Figure 3



2. [14-15 Standardized Test Q1]

Draw the 2-D representation of the following prism on the oblique grid. **(2 marks)**



3. [14-15 Standardized Test Q4]

In **Figure 2**, EAC , FAB and BDC are straight lines. It is given that $\angle ABC = 6x$, $\angle ACB = 4x$, $\angle BAD = 5x$ and $\angle CAD = 3x$, find the value of $\angle EAF$. **(2 marks)**

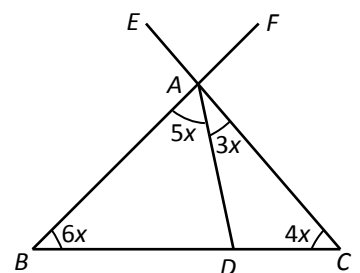
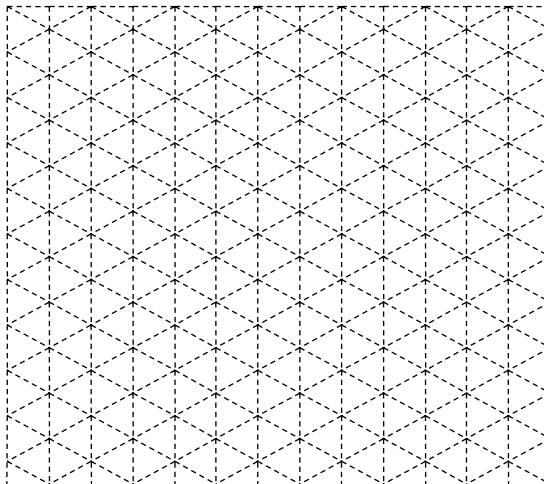
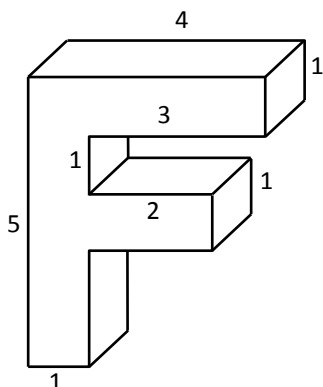


Figure 2

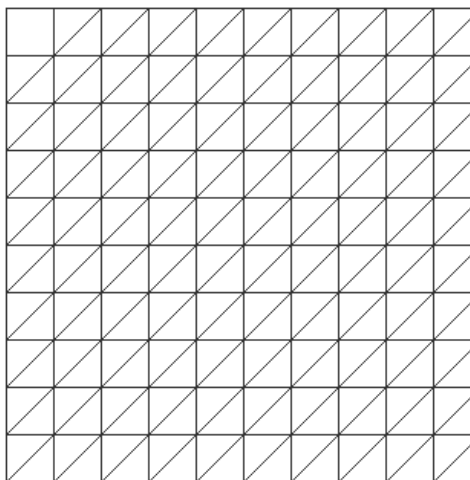
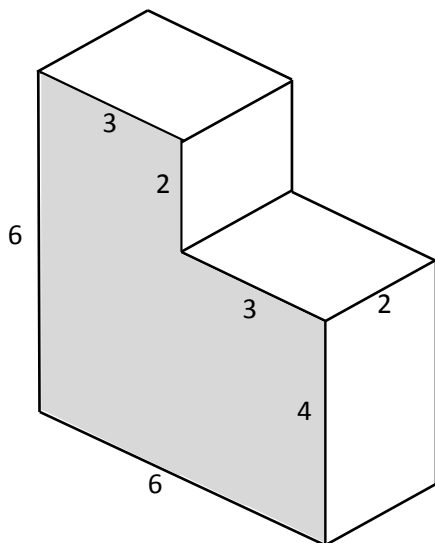
4. [14-15 Final Exam Q1]

Draw the 2-D representation of the following solid on the isometric grid paper.



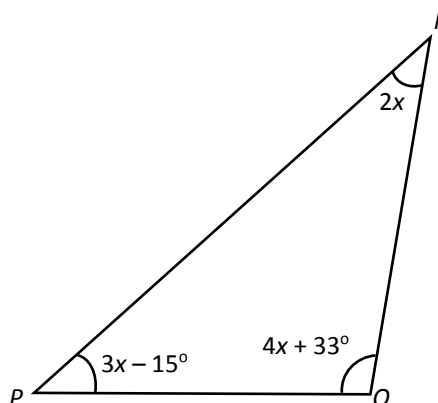
5. [15-16 Standardised Test Q1]

Figure 1 shows the 2-D representation of a prism. Draw the 2-D representation of the prism on the oblique grid with the grey surface facing you. **(2 marks)**



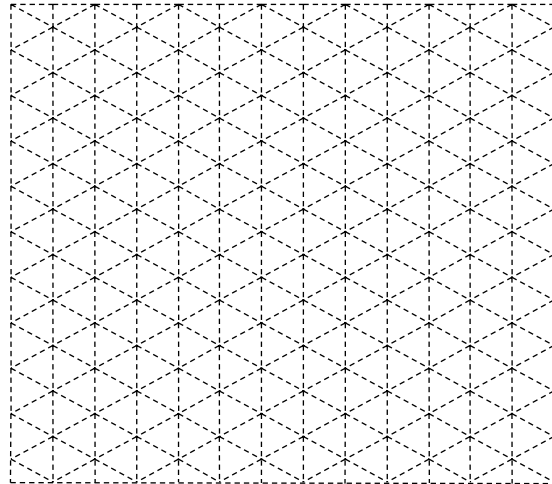
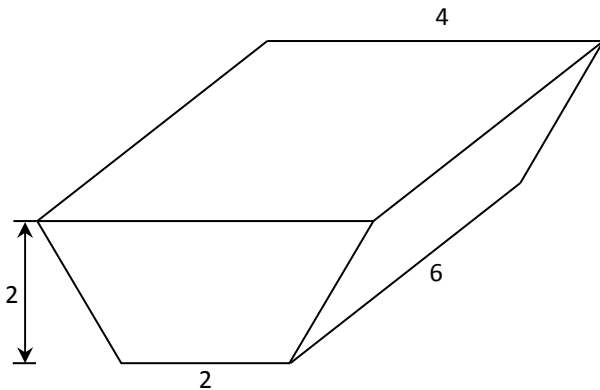
6. [15-16 Standardised Test Q5]

Figure 5 shows a triangle PQR . Find x . **(2 marks)**



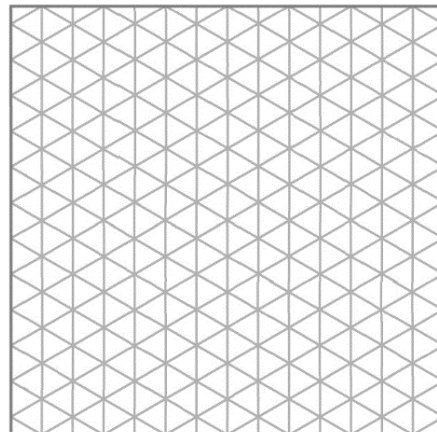
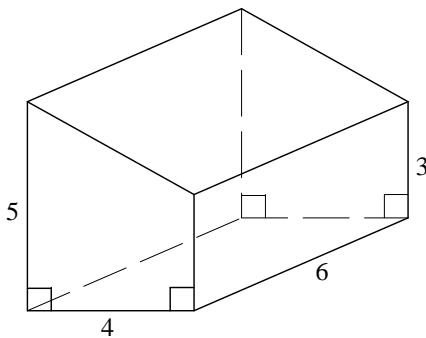
7. [15-16 Final Exam Q2]

Draw the 2-D representation of the following prism on the isometric grid paper. **(2 marks)**



8. [16-17 Standardised Test Q3]

Draw the 2-D representation of the given solid on the following isometric grid. **(2 marks)**

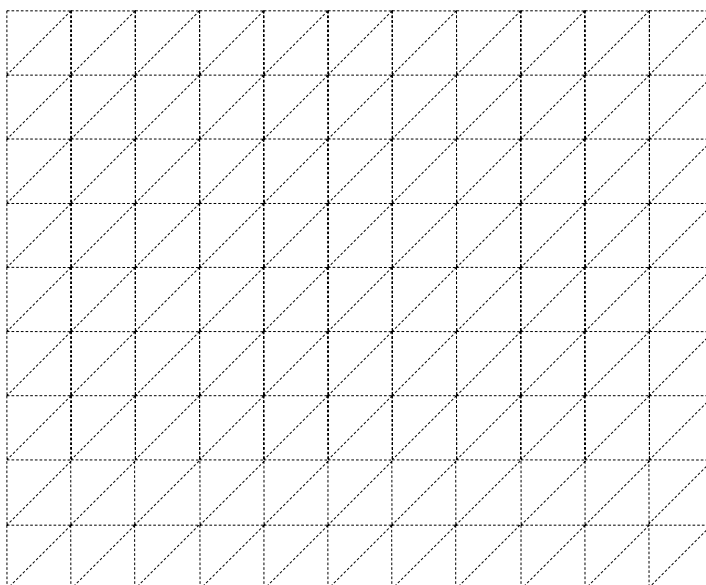
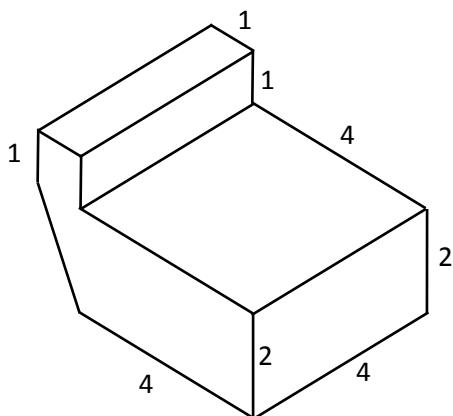


9. [16-17 Standardised Test Q4]

It is given that a polyhedron has n faces, 15 edges and $2(n - 2)$ vertices. Find the value of n . **(2 marks)**

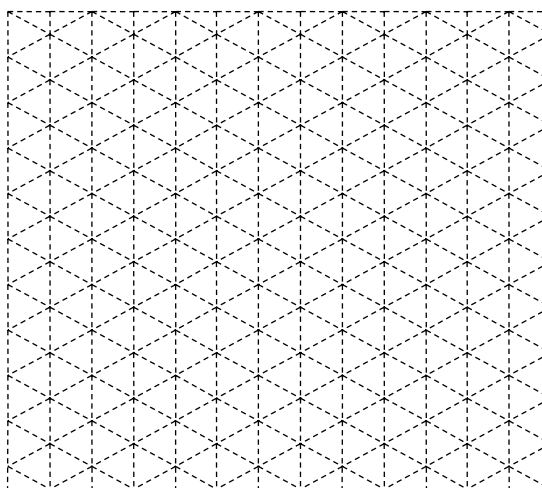
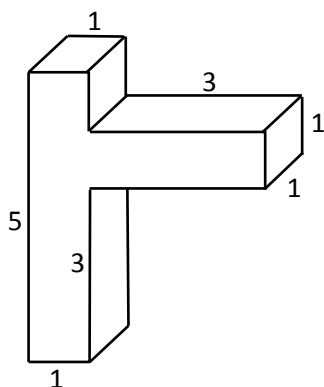
10. [16-17 Final Exam Q5]

Draw the 2-D representation of the given prism on the oblique grid provided. **(2 marks)**



11. [17-18 Mid-Year Exam #5]

Draw the 2-D representation of the following solid on the isometric grid paper. **(2 marks)**



12. [17-18 Mid-Year Exam #11]

In **Figure 1**, O is the centre of circle $ACBD$. OA, OB and OC are the radii and AOB is the diameter. It is given that $BC = OC$.

(a) By considering the length of the sides, name the following triangles:

- (i) $\triangle OAC$ **(1 mark)**
- (ii) $\triangle OBC$ **(1 mark)**

(b) Karen claims that if $BD = CD$, $OBDC$ is a concave polygon. Do you agree? Explain your answer. **(1 mark)**

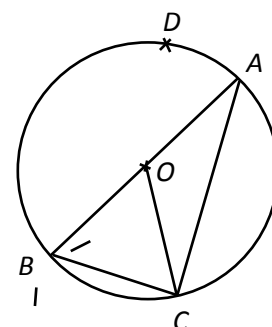


Figure 1

13. [17-18 Mid-Year Exam #12]

In **Figure 2**, ABD is a straight line. $\angle BCA = 60^\circ$ and $\angle ABC = 3\angle BAC$.

(a) Find $\angle BAC$. (2 marks)

(b) It is given that $\angle ADC = 60^\circ - \frac{x^\circ}{100}$, where x is positive.

Chloe claims that $\angle ACD$ is an obtuse angle. Do you agree?

Explain your answer. (2 marks)

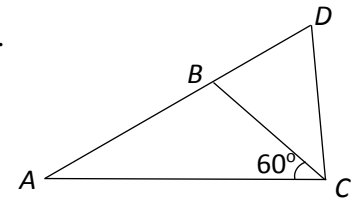


Figure 2

14. [17-18 Final Exam #4]

Figure 1 shows a right circular cone of base radius 3 cm and height 15 cm. A cross-section is obtained from cutting along a vertical plane passing through the centre of the base such that it is divided into two equal halves.

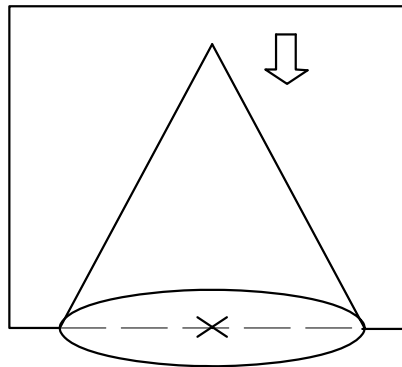


Figure 1

(a) What is the type of figure of the cross-section if it is classified by its sides? (1 mark)

(b) Find the area of the cross section. (1 mark)

~ End ~