## Revision Exercise (2)

1. (i) 5 m is represented by 1 cm in a scale diagram. Express this scale as a ratio.
(ii) Find the actual length of a house which is represented by 8 cm in a scale diagram drawn to the scale 1:200.
(iii) The length of a school building is 20 m and its width is 6 m . Draw a scale diagram of this building using the scale $1: 100$.
2. A net of a solid object is shown here. There are 6 equal squares of side length 6 cm .
(i) Write down the name of the solid that can be constructed by folding along the dotted lines.
(ii) Considering the number of vertices, edges and faces of this solid object, show that Euler's relationship is satisfied by these values.
(iii) Obtain the total surface area of the solid by finding the area of each face.
(iv) Find the length of an edge of a solid of the same shape whose total surface area is $384 \mathrm{~cm}^{2}$.

3. A prism is shown in the figure. The triangular faces are isosceles.
(i) Draw the 3 rectangular faces of the prism separately and mark their dimensions.
(ii) Find the area of each of these faces separately.
(iii) There are 10 edges and 6 vertices in a solid with plane faces. Find the number of faces
 that the solid has using Euler's relationship.
4. (i) From the following plane shapes, select the ones that can be used for pure tessellation.
(a)

(b)

(c)

(d)

(ii) Select and separately write down the pure tessellations and the semi pure tessellation.

(b)


5. The marks obtained by a student during 3 terms for Mathematics, Science and English are shown in the multiple column graph.

(i) Which subject shows a continuous increase in the marks?
(ii) For which subject has the student obtained identical marks in two terms?
(iii) By how many marks has the total marks obtained in the 3rd term for all 3 subjects increased when compared with the total marks obtained in the 1 st term for all 3 subjects?
6. If each employee is provided with 7.5 metres of material to sew uniforms, calculate the number of metres of material that is required for 12 employees.
7. If the thickness of a DVD is 2.3 mm , find the thickness of a package consisting of 5 such DVDs.
8. Information on the quantities of milk bought by three households during a week from a milkman is given below.
(i) Household $A$ buys $1 l 500 \mathrm{ml}$ of milk per day on all seven days of the week. Find the total quantity of milk that household $A$ buys during a week.
(ii) Household $B$ buys the same amount of milk on each of the seven days of a week. The total amount of milk household $B$ buys during a week is $12 l 250 \mathrm{ml}$. Find the amount of milk household $B$ buys per day.
(iii) Find the total quantity of milk bought during a week by household $C$, if $7 l 500 \mathrm{ml}$ of milk in total is bought during the five week days and $2 l 750 \mathrm{ml}$ of milk in total is bought on Saturday and Sunday.
(iv) During the school holidays, the milkman is asked to deliver 250 ml more milk per week than the normal amount he delivers. If an equal amount of milk is delivered each day, find the amount he delivers to household $C$ per day during the holidays.
