A Measurement: Volume of solids with straight sides

Find the volume of these solids:

1   **2**   **3**   **4**

5 m 5 m ← 12 m → 6 m 7 m 16 m ← 22 m → 6 m 4 m 8 m 5 m
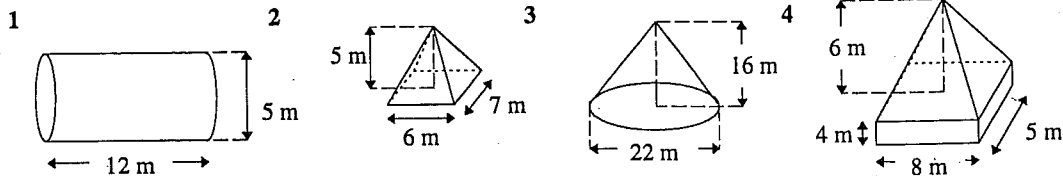
B Measurement: Working with time

1 Joe's pay rate is $11.25 per hour. Calculate his pay from this time record. (Overtime is $1\frac{1}{2}$ times pay rate, double overtime is 2 times the pay rate).

Monday – 3 hours at ordinary rate   Friday – 6 hours overtime
Tuesday – no work   Saturday – $2\frac{1}{2}$ hours doubletime
Wednesday – no work   Sunday – $1\frac{1}{3}$ hours overtime
Thursday – 4 hours doubletime

2 If tax is charged at the rate of $12\frac{1}{2}$ % find Joe's take home pay for the week.

C Geometry: Tessellations

1 Draw a section of a tessellating pattern made up only of hexagons.
2 Draw a small section of the semi-regular tessellation with the code of (3, 3, 4, 3, 4).
3 Complete the "Escher shifts" to produce a tessellating shape and draw a section of the pattern:

D Geometry: Drawing diagrams of solids

Make an isometric drawing to represent the structure shown in this plan and elevation diagram. Shade the diagram to highlight its three-dimensional structure.
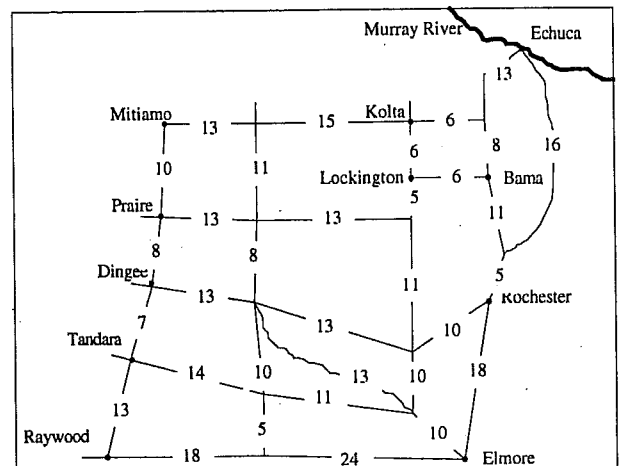
Plan   Left Elevation   Front Elevation
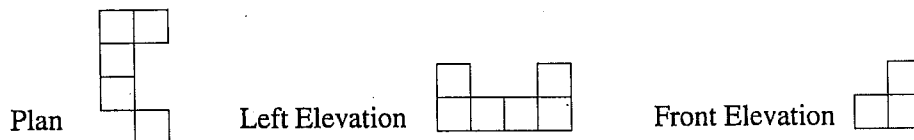
E Geometry: Network diagrams
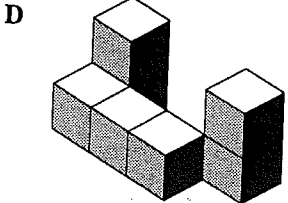
1 (a) Draw a network diagram in which
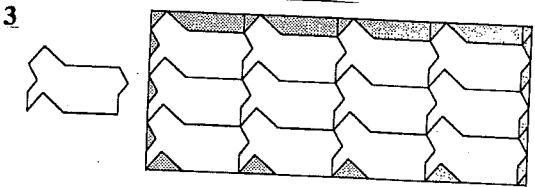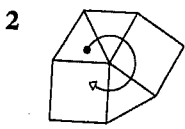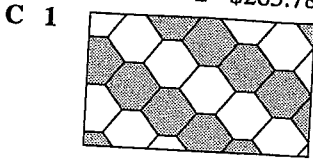A is joined to B and C   B is joined to A   C is joined to A, D and E
D is joined to C and E   E is joined to C, D, G and H   G is joined to E and H
H is joined to E
(b) Use the diagram from (a) to find three different pathways from C to H if paths can't be used twice.

3 Trace on this map the shortest route from:
(a) Dingee to Echuca and
(b) Elmore to Dingee to Rochester, without using the same road twice.
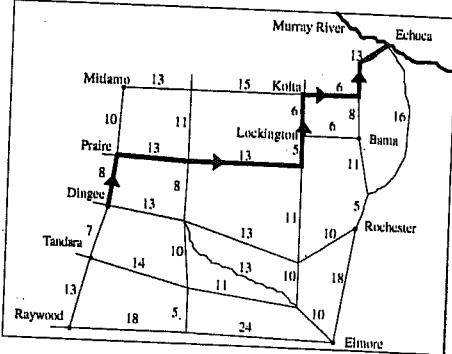
Murray River   Echuca
13
Mitiamo   13   15   Kolta   6
6   8   16
10   11   Lockington   6   Bama
Prairie   13   13   5   11
8   8
Dingee   11   5
13   13   Rochester
7
Tandara   13   10
14   10   13   10   18
13   11
5
Raywood   18   24   Elmore

A **1** 235.5 m³   **2** 70 m³   **3** 2027.4 m³ **4** 240 m³

B **1** $303.75   **2** $265.78

C **1**

2

3

D

E **1**

2 CEH, CEGH, CDEH, CDEGH

3 64 km

4 88 km