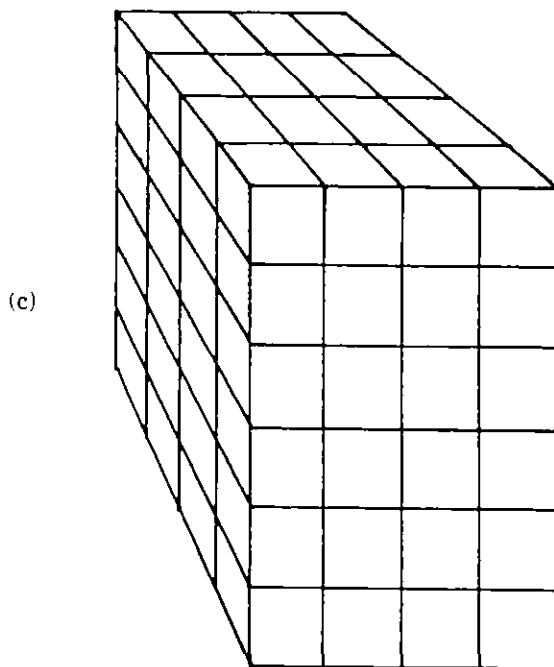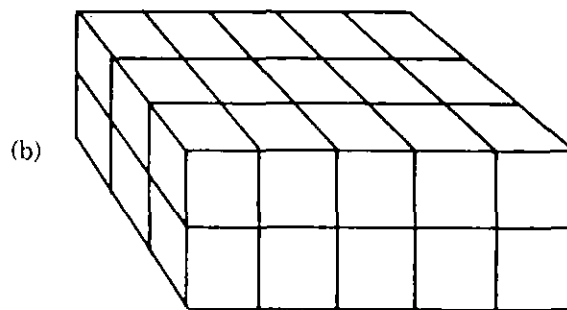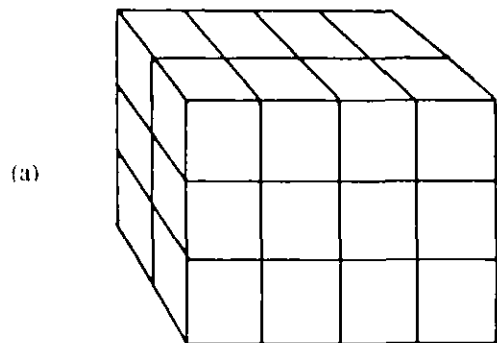# 28.
Volume

Make up 3 rectangular solids using cubic centimetre multi-link blocks.

(a)

(b)

(c)

(d) Have students develop blocks of specific dimensions. For example: 4 in a row, 3 rows, 5 high.

Make 2 boxes. Let students fill the boxes with cubes.

A — 3 cm, 5 cm, 2 cm

B — 6 cm, 5 cm, 3 cm

Make boxes with the dimensions given or decided upon by the class. Suggested dimensions:

Box C   12 cm x 8 cm x 5 cm
Box D   6 cm x 6 cm x 10 cm
Box E   6 cm x 9 cm x 14 cm

Ask the following questions: How many cubes in a row? How many rows? How many layers? How many cubes in total?

Questions

1. Count the number of cubes in:

   (a) _____ ?

   (b) _____ ?

   (c) _____ ?

2. Fill boxes A and B with cubes. How many cubes do you need for:

   Box A _____ ?

   Box B _____ ?

   What is the volume of Box A? _____

   What is the volume of Box B? _____

3. What is the volume of Box C? _____
   What is the volume of Box D? _____
   What is the volume of Box E? _____

4. What would be the volume of the box that has:

   (a)   5 cubes in one row
         5 rows
         5 layers   _____

   (b)   8 cubes in one row
         7 rows
         4 layers   _____

   (c) 11 cubes in one row
         8 rows
         10 layers   _____