

1076 NADI SANGAM SCHOOL

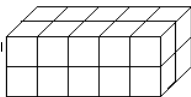
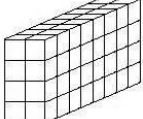
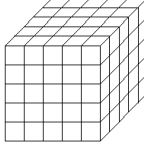
YEAR 7

MATHEMATICS

WORKSHEET 3 - SOLUTION

VOLUME OF RECTANGULAR PRISM

1. Find the volume of each rectangular prism in cubic centimetres.

<p>a.</p>  <p>Volume = $L \times W \times H$ $= 5 \times 2 \times 2$ $= 20\text{cm}^3$</p>	<p>b.</p>  <p>Volume = $L \times W \times H$ $= 2 \times 8 \times 4$ $= 64\text{cm}^3$</p>	<p>c.</p>  <p>Volume = $L \times W \times H$ $= 5 \times 5 \times 5$ $= 125\text{cm}^3$</p>
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2. Complete the table below:

	Area of base ($L \times W$)	Height of base	Volume of prism ($L \times W \times H$)
a	10cm^2	6cm	60cm^3
b	15cm	12cm	180cm^3
c	50cm^2	9cm	450cm^3
d	12cm	9cm	108cm^3

Volume of a cube is 1cm^3	Volume of a stick is 10cm^3
Volume of flat is 100cm^3	Volume of Block is 1000cm^3

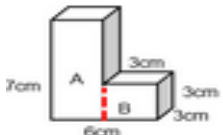
3. Find the volume of each set of Dienes blocks.

a) 5 cubes, 4 sticks and 7 flats **ANS. $(5 \times 1\text{cm}^3) + (4 \times 10\text{cm}^3) + (7 \times 100\text{cm}^3)$
 $= 5\text{cm}^3 + 40\text{cm}^3 + 700\text{cm}^3 = \underline{745\text{cm}^3}$**

b) 12 cubes, 7sticks, 1 block and 8 flats
**ANS. $(12 \times 1\text{cm}^3) + (7 \times 10\text{cm}^3) + (1 \times 1000\text{cm}^3) + (8 \times 100\text{cm}^3)$
 $= 12\text{cm}^3 + 70\text{cm}^3 + 1000\text{cm}^3 + 800\text{cm}^3 = \underline{1882\text{cm}^3}$**

c) 15 sticks, 15 cubes, 5 flat and 1 block
**ANS. $(15 \times 10\text{cm}^3) + (15 \times 1\text{cm}^3) + (5 \times 100\text{cm}^3) + (1 \times 1000\text{cm}^3)$
 $= 150\text{cm}^3 + 15\text{cm}^3 + 500\text{cm}^3 + 1000\text{cm}^3 = \underline{1665\text{cm}^3}$**

4. Find the volume

	<p>Volume A = $L \times W \times H$ + Volume B = $L \times W \times H$ $= 3\text{cm} \times 3\text{cm} \times 7\text{cm}$ $= 3\text{cm} \times 3\text{cm} \times 3\text{cm}$ $= 63\text{cm}^3$ + $= 27\text{cm}^3$ VOLUME OF THE SHAPE IS = $\underline{90\text{cm}^3}$</p>
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