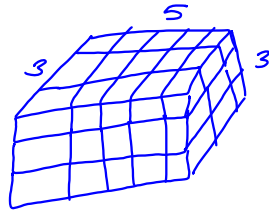10.7 Volume of Prism

Volume
— How much can
I put inside
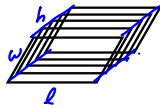

Cube (Answer is in cubic units)

5   3   3

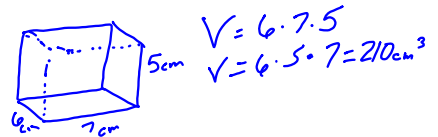$\begin{array}{r} 15 \\ 15 \\ 15 \\ \hline 45 \text{ cubes} \end{array}$

45 cubic units

45 units^3

Layers of a certain area
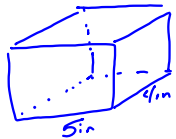h $\ell \cdot w$

h
w
ℓ

Volume = $\ell \cdot w \cdot h$

$V = 3 \cdot 5 \cdot 3 = 45$

5cm
6in
7cm

$V = 6 \cdot 7 \cdot 5$
$V = 6 \cdot 5 \cdot 7 = 210 cm^3$

A box is used
to ship dice

3in
4in
5in

If the box is
5x4x3 how many
1in^3 dice can be
shipped
60 dice

$V = 5 \cdot 4 \cdot 3 = 60 in^3$

$V = 2in \times 1in \times 3in = 6 in^2$

10 lincoln logs

Volume = $\ell \cdot w \cdot h$

$21,600 = \ell \cdot 12 \cdot 30$

$\dfrac{21600}{360} = \dfrac{\ell \cdot 360}{360}$

$36\overline{)2160}$ $\begin{array}{r} 60 \\ \hline 2160 \\ \underline{216} \\ 0 \end{array}$

$60 = \ell$

5ft x 1ft x 2.5ft

$$V = l \cdot w \cdot h$$

P 552 - 553

2 - 24 even