Model & coordinate axes

back

left

y **Top**

right

bottom ← **Front** → **x**

z

Origin is the darkened vertex.

Model is 3 solids joined

→ horizontal prism
→ vertical prism
→ trapezoid
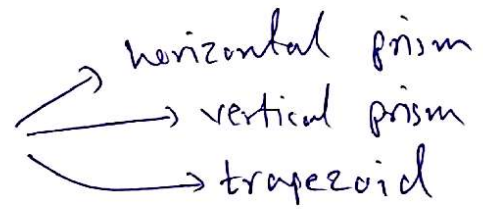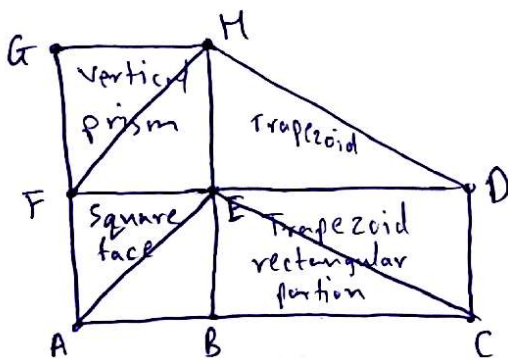
Following diagrams shows how each of the faces are divided into triangles.

The vertices remain same for trianglestrips just the order in which they are stored in array changes. (Code has comments to link back)

Left side view

G   H
Vertical prism   Trapezoid
F   E
Square face   Trapezoid rectangular portion
A   B   C   D

$A = \{0, 0, 3\}$

$B = \{1, 0, 3\}$

$C = \{3, 0, 1\}$

$D = \{3, 1, 1\}$

$E = \{1, 1, 3\}$

$F = \{0, 1, 3\}$

$G = \{0, 2, 1\}$
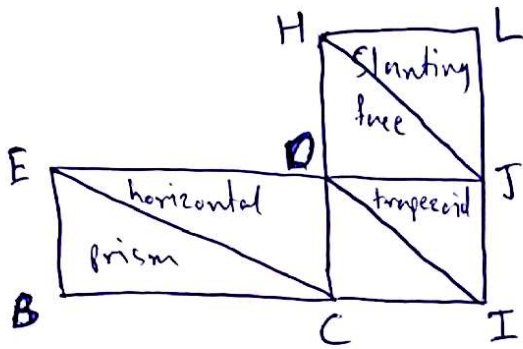
$H = \{1, 2, 1\}$

Front View

H · L

Slanting face

E · D · J

horizontal prism

trapezoid

B · C · I

$B = \{1, 0, 3\}$

$C = \{3, 0, 1\}$ (Hides $\{1,0,1\}$ in view)

$I = \{3, 0, 0\}$

$J = \{3, 1, 0\}$

$D = \{3, 1, 1\}$ (Hides $\{1,1,1\}$ in the view)

$E = \{1, 1, 3\}$

$L = \{1, 2, 0\}$

$H = \{1, 2, 1\}$

Right Side View

L · Q

vertical

trapezoid triangular

J · O

trapezoid

rectangular · P · prism

I · N

M
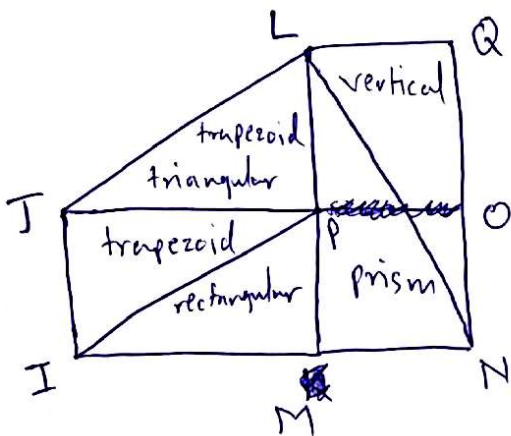
$I = \{3, 0, 0\}$
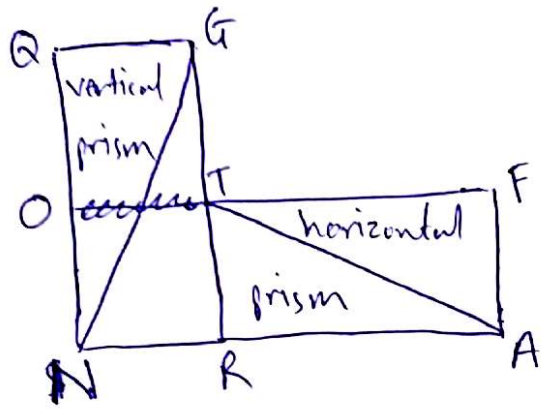
$M = \{1, 0, 0\}$

$N = \{0, 0, 0\}$

$O = \{0, 1, 0\}$

$P = \{1, 1, 0\}$

$J = \{3, 1, 0\}$

$Q = \{0, 2, 0\}$

$L = \{1, 2, 0\}$

Back View

$$A = \{0, 0, 3\}$$
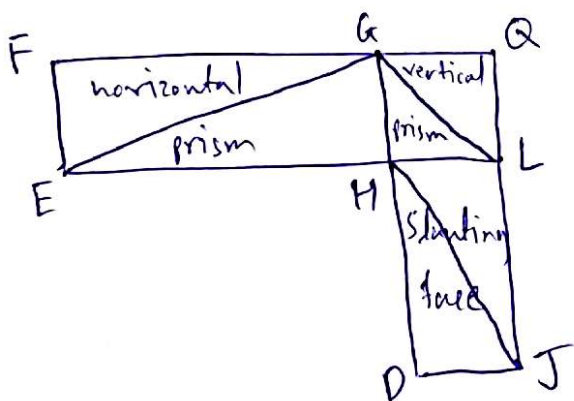$$R = \{0, 0, 1\}$$
$$N = \{0, 0, 0\}$$
$$O = \{0, 1, 0\}$$
$$T = \{0, 1, 1\}$$
$$F = \{0, 1, 3\}$$
$$G = \{0, 2, 1\}$$
$$Q = \text{~~~~~~~~~~~~} \{0, 2, 0\}$$

Top View

$$D = \{3, 1, 1\}$$
$$J = \{3, 1, 0\}$$
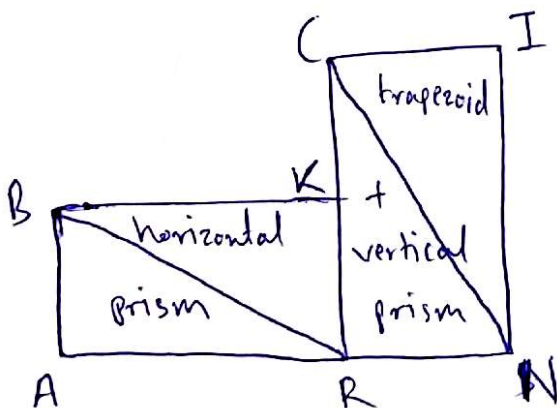$$H = \{1, 2, 1\}$$
$$L = \{1, 2, 0\}$$
$$Q = \{0, 2, 0\}$$
$$G = \{0, 2, 1\}$$
$$E = \{1, 1, 3\}$$
$$F = \{0, 1, 3\}$$

Bottom View

$$A = \{0, 0, 3\}$$
$$B = \{1, 0, 3\}$$
$$R = \{0, 0, 1\}$$
$$N = \{0, 0, 0\}$$
$$I = \{3, 0, 0\}$$
$$C = \{3, 0, 1\}$$
$$K = \{1, 0, 1\}$$