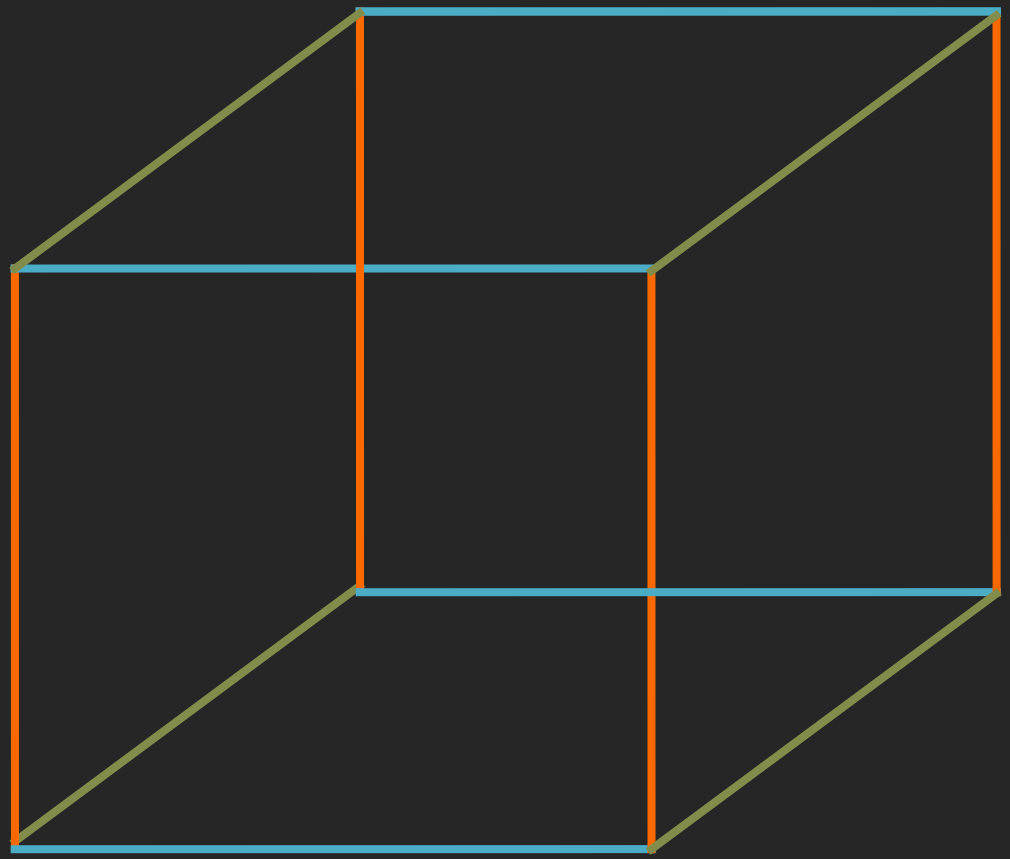
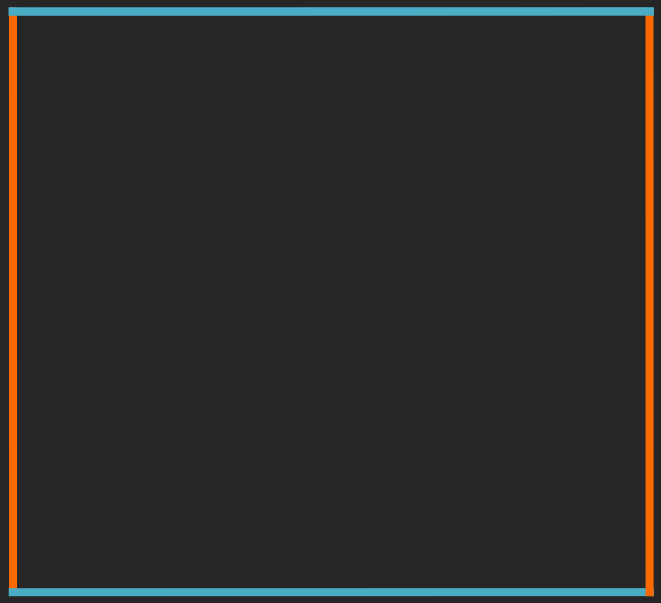
The multidimensional nightmare!

Volume =
length x height x width



Surface =
length x width



length =

length

Volume =

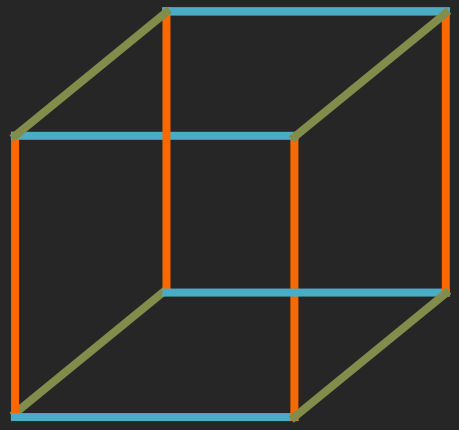
length x height x width

Surface =

length x height

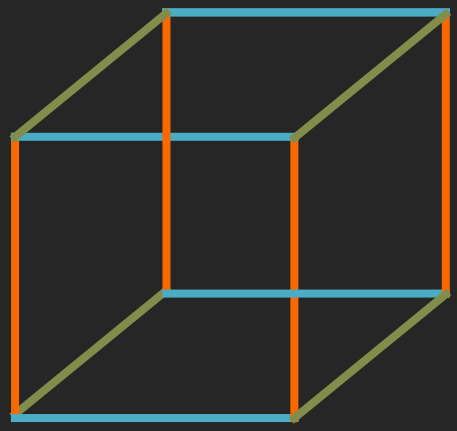
Length =

length



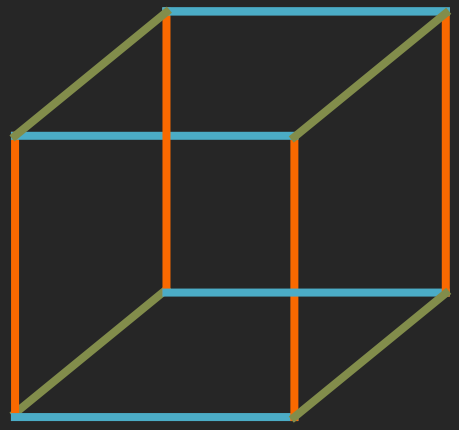
Renaming dimensions:

Volume =
PC1 x PC2 x PC3
Surface =
PC1 x PC2
Length =
PC1



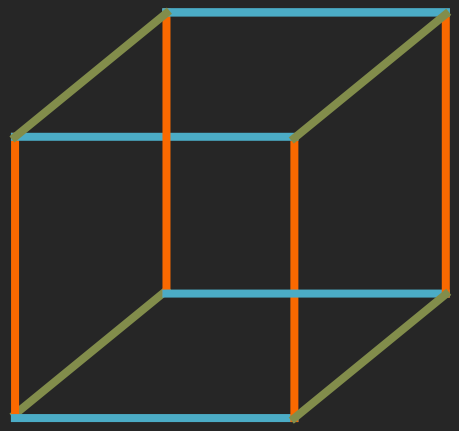
Renaming dimensions:

Volume =
Dim.1 x Dim.2 x Dim.3
Surface =
Dim.1 x Dim.2
Length =
Dim.1



Renaming metrics:

Volume 3D =
Dim.1 x Dim.2 x Dim.3
Volume 2D =
Dim.1 x Dim.2
Volume 1D =
Dim.1



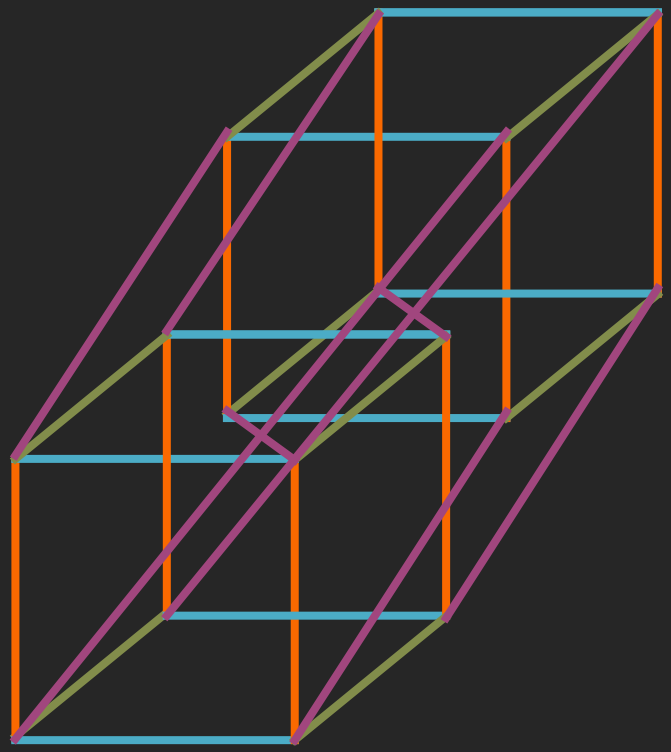
Adding more dimensions

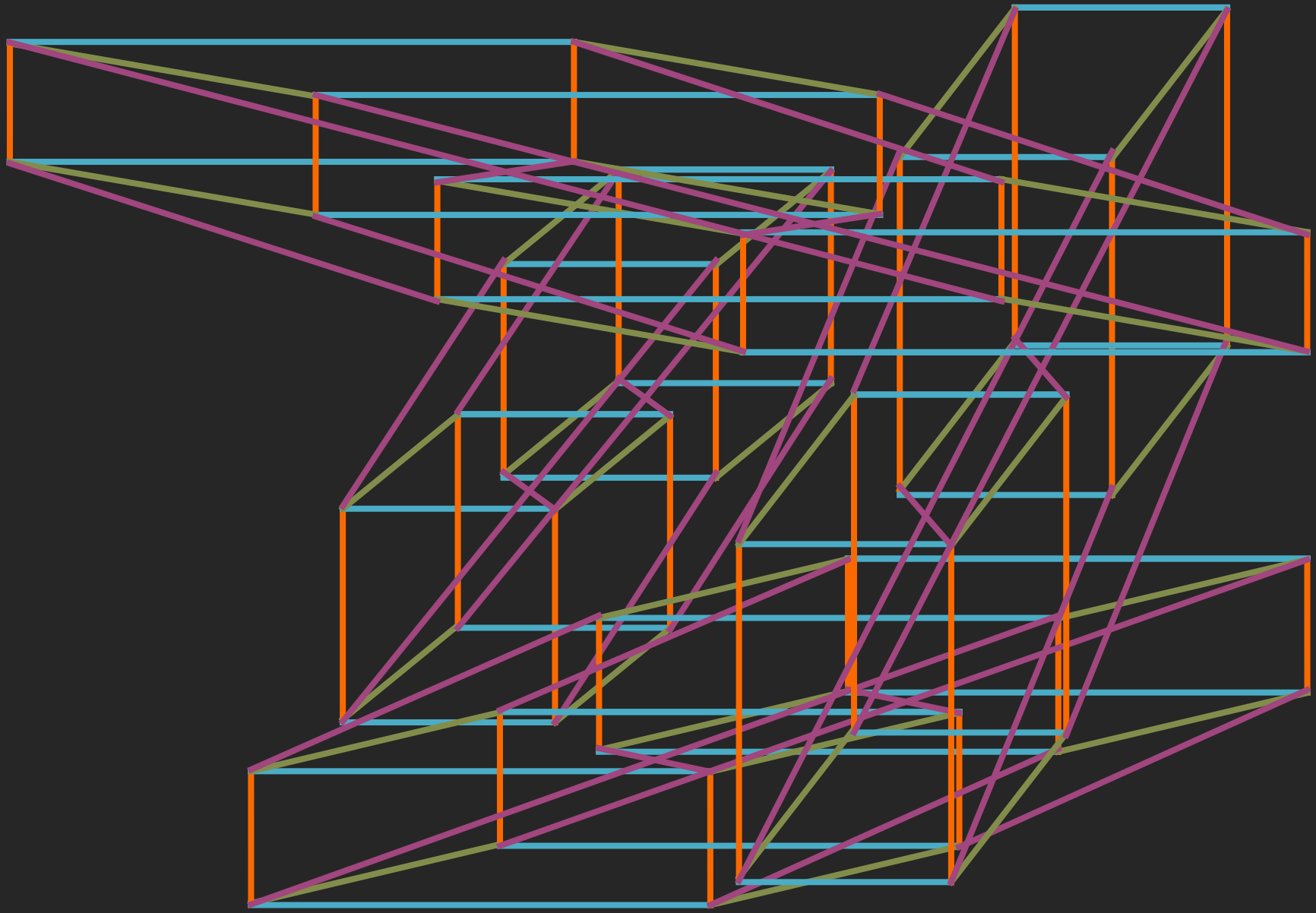
Volume 4D =
Dim.1 x Dim.2 x Dim.3 x Dim.4

Volume 3D =
Dim.1 x Dim.2 x Dim.3

Volume 2D =
Dim.1 x Dim.2

Volume 1D =
Dim.1





R Session Aborted

R encountered a fatal error.

The session was terminated.

Start New Session

Generalising:

Volume *n*D =
product of dimensions