

PROJECT LEAD THE WAY

PLTW

Igniting imagination and innovation through learning.

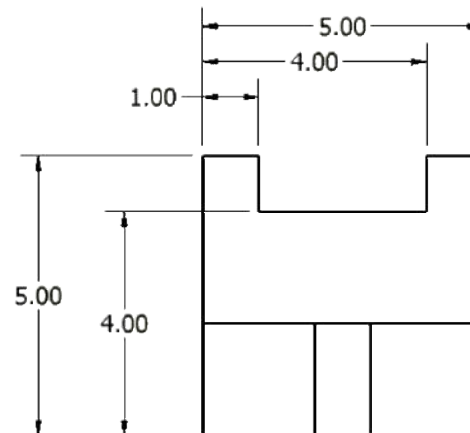
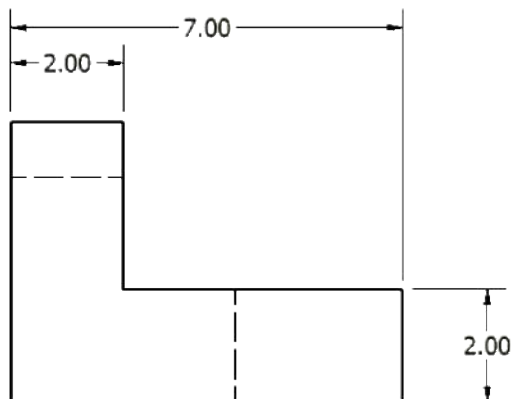
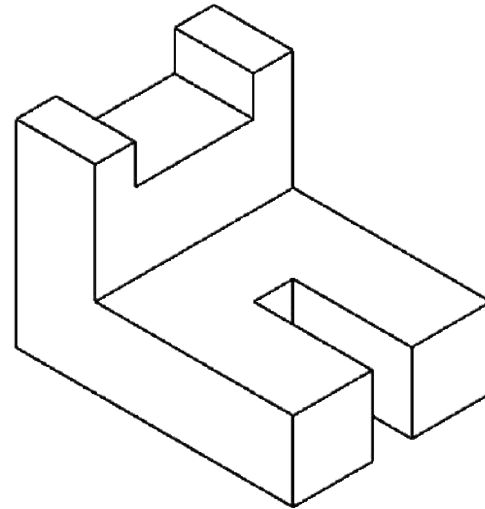
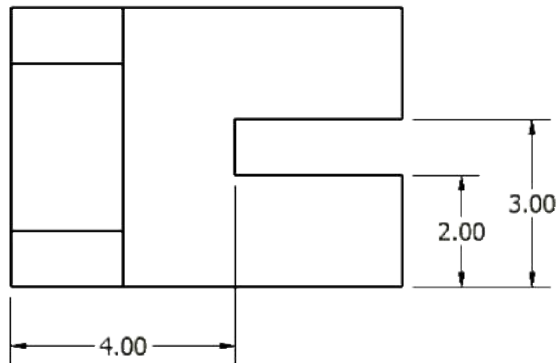
Sketching Multiview Drawings

Multiview Drawing

A multiview drawing is one that shows two or more two-dimensional views of a three-dimensional object.

Multiview drawings provide the shape description of an object. When combined with dimensions, multiview drawings serve as the main form of communication between designers and manufacturers.

Multiview Drawing



Width, Depth, and Height

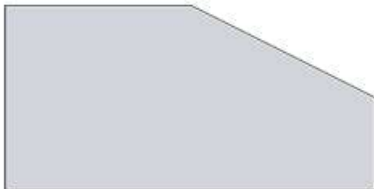
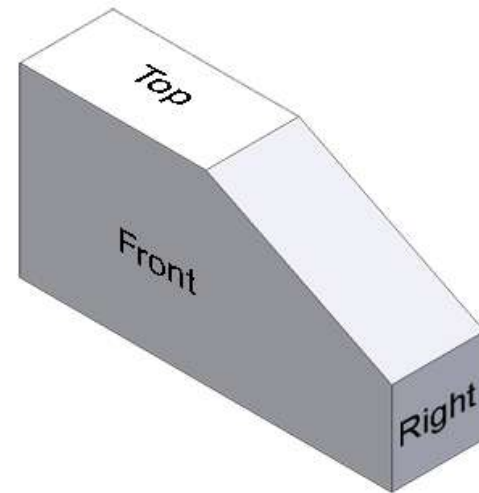
All three-dimensional objects have ***width***, ***height***, and ***depth***.

Width is associated with an object's ***side-to-side*** dimension.

Height is the measure of an object from ***top-to-bottom***.

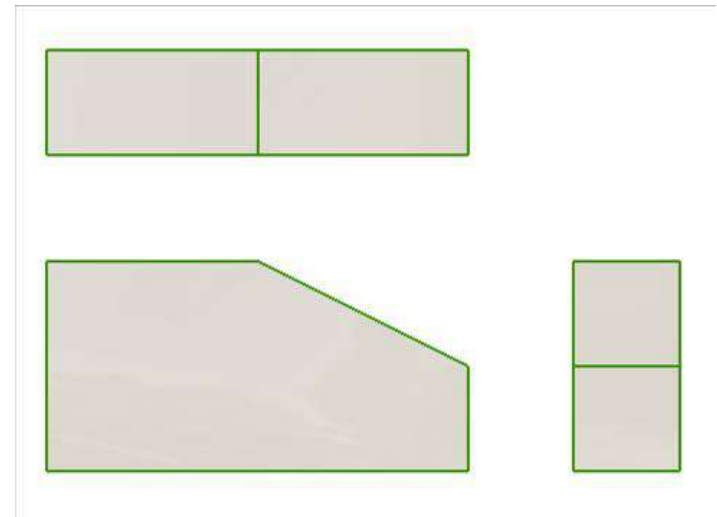
Depth is associated with ***front-to-back*** distance.

Width, Depth, and Height



Sketching a Multiview Drawing

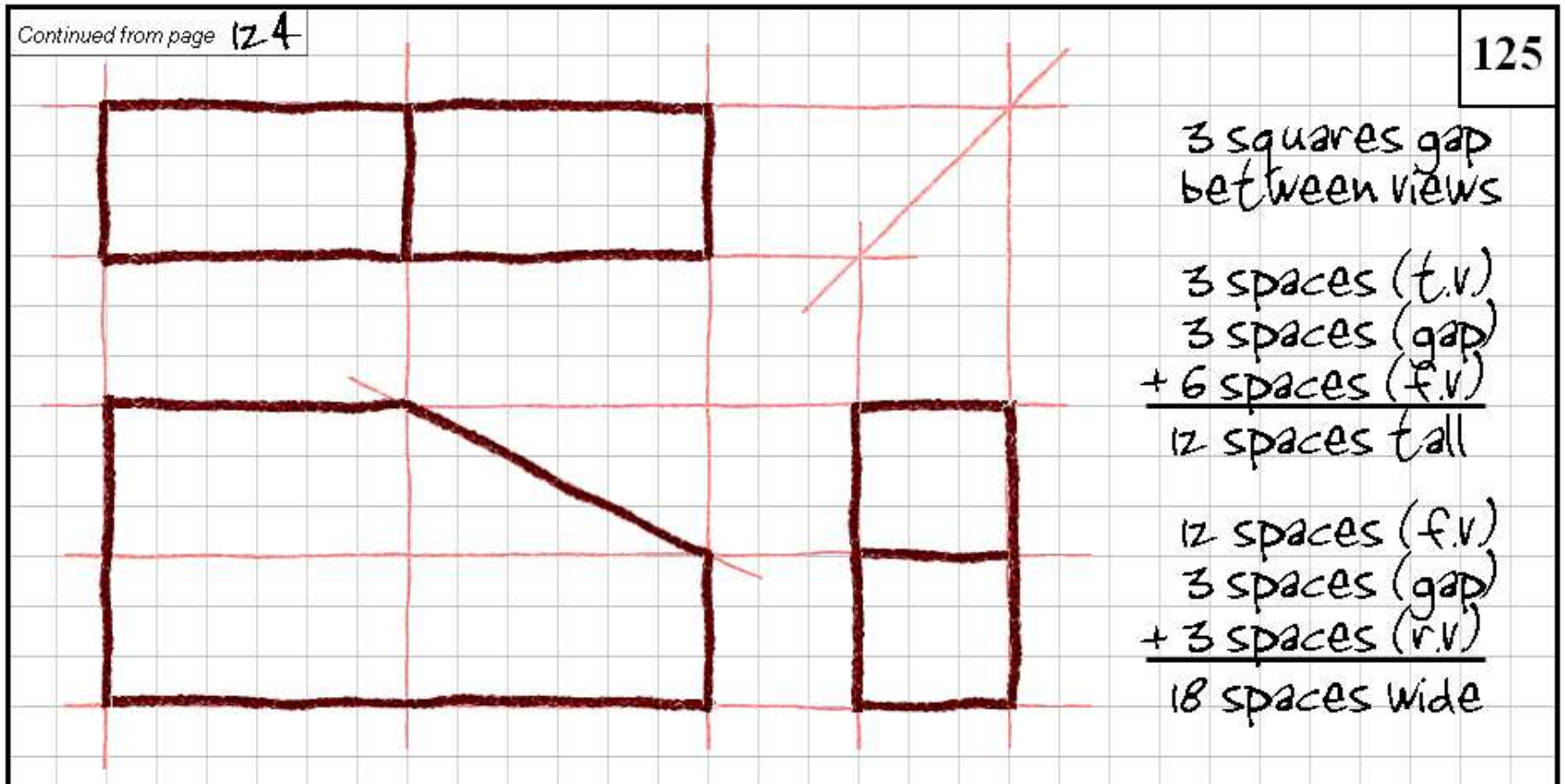
Given the overall dimensions of the object, a pencil, and a sheet of graph paper, a sketching multiview drawing can be easily done using points, construction lines, and object lines



Object Line Layout

Continued from page 124

125



3 squares gap
between views

3 spaces (t.v.)
3 spaces (gap)
+ 6 spaces (f.v.)

12 spaces tall

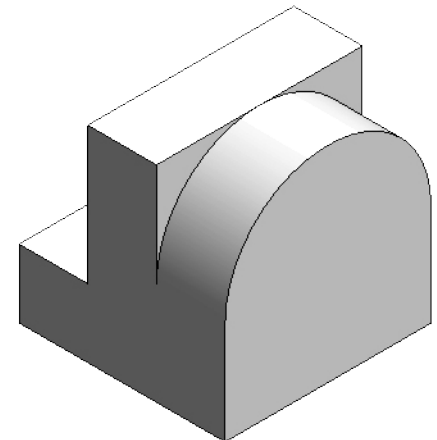
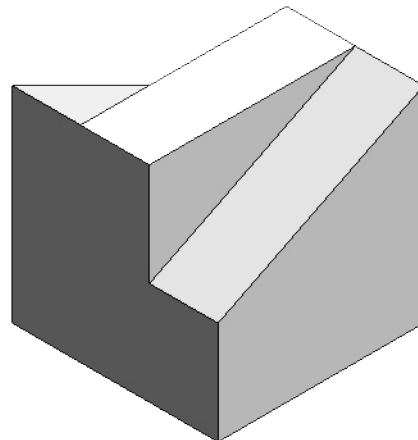
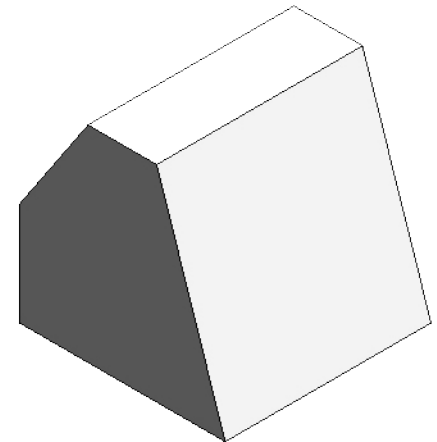
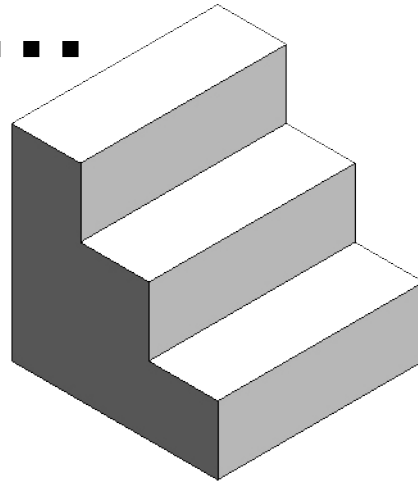
12 spaces (f.v.)
3 spaces (gap)
+ 3 spaces (r.v.)

18 spaces wide

A

Question...

Each of the
blocks at right
has the same
overall
dimensions and
color. What else
do they have in
common?



A

Question...

**They all have
identical top
views!**

