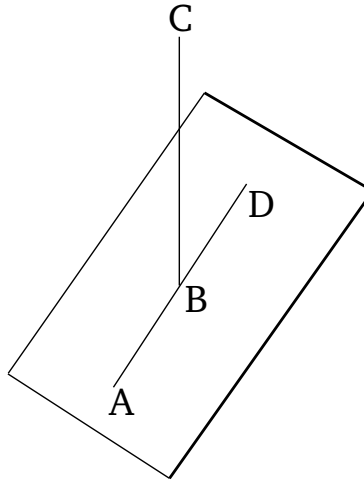# Book 11
Proposition 1

Some part of a straight-line cannot be in a reference plane, and some part in a more elevated (plane).

For, if possible, let some part, AB, of the straight-line ABC be in a reference plane, and some part, BC, in a more elevated (plane).

In the reference plane, there will be some straight-line continuous with, and straight-on to, AB.‡ Let it be BD. Thus, AB is a common segment of the two (different) straight-lines ABC and ABD. The very thing is impossible, inasmuch as if we draw a circle with center B and radius AB then the diameters (ABD and ABC) will cut off unequal circumferences of the circle.

Thus, some part of a straight-line cannot be in a reference plane, and (some part) in a more elevated (plane). (Which is) the very thing it was required to show.