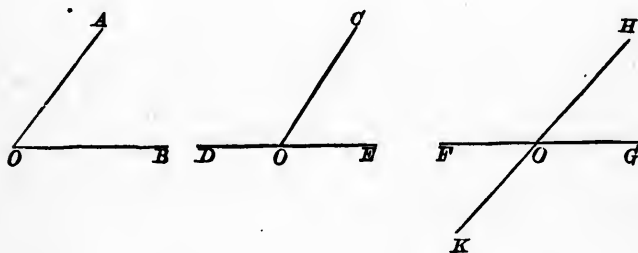


The Surfaces, Lines, and Points of Geometry may be regarded as mental pictures of the surfaces, lines, and points which we know from experience.

It is, however, to be observed that Geometry requires us to conceive the possibility of the existence
 of a Surface apart from a Solid body,
 of a Line apart from a Surface.
 of a Point apart from a Line.

VIII. When two straight lines meet one another, the inclination of the lines to one another is called an **ANGLE**.

When *two* straight lines have one point common to both, they are said to *form* an angle (or angles) at that point. The point is called the *vertex* of the angle (or angles), and the lines are called the *arms* of the angle (or angles).



Thus, if the lines OA , OB are terminated at the same point O , they form an angle, which is called *the angle at O* , or *the angle AOB* , or *the angle BOA* ,—the letter which marks the vertex being put between those that mark the arms.

Again, if the line CO meets the line DE at a point in the line DE , so that O is a point common to both lines, CO is said to make with DE the angles COD , COE ; and these (as having one arm, CO , common to both) are called *adjacent* angles.

Lastly, if the lines FG , HK cut each other in the point O , the lines make with each other four angles FOH , HOG , GOK , KOF ; and of these GOH , FOK are called *vertically opposite* angles, as also are FOH and GOK ,