

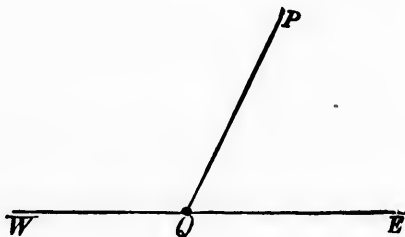
NOTE 3. On Euclid's definition of an Angle.

Euclid directs us to regard an angle as the inclination of two straight lines to each other, which meet, *but are not in the same straight line.*

Thus he does not recognise the existence of a single angle equal in magnitude to two right angles.

The words printed in italics are omitted as needless, in Def. VIII., p. 3, and that definition may be extended with advantage in the following terms —

DEF. Let WQE be a fixed straight line, and QP a line which revolves about the fixed point Q , and which at first coincides with QE .



Then, when QP has reached the position represented in the diagram, we say that it has described the angle EQP .

When QP has revolved so far as to coincide with QW , we say that it has described an angle *equal to two right angles.*

Hence we may obtain an easy proof of Prop. XIII. ; for whatever the position of PQ may be, the angles which it makes with WE are together equal to two right angles.

Again, in Prop. xv. it is evident that $\angle AED = \angle BEC$, since each has the same supplementary $\angle AEC$.

We shall shew hereafter, p. 149, how this definition may be extended, so as to embrace angles *greater than two right angles.*