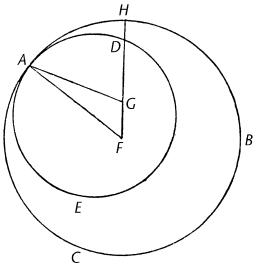
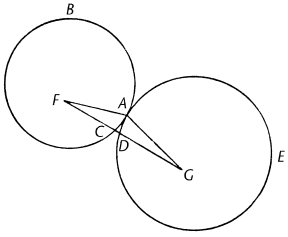


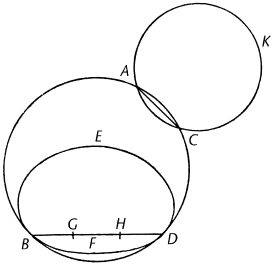
Proposition 11

If two circles touch one another internally, and their centres be taken, the straight line joining their centres, if it be also produced, will fall on the point of contact of the circles.

Proposition 12

If two circles touch one another externally, the straight line joining their centres will pass through the point of contact.

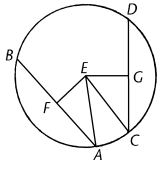




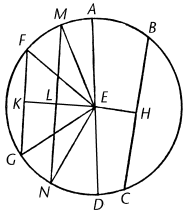
Proposition 13

A circle does not touch a circle at more points than one, whether it touch it internally or externally.

Proposition 14



In a circle equal straight lines are equally distant from the centre, and those which are equally distant from the centre are equal to one another.



Proposition 15

Of straight lines in a circle the diameter is greatest, and of the rest the nearer to the centre is always greater than the more remote.

Proposition 16

The straight line drawn at right angles to the diameter of a circle from its extremity will fall outside the circle, and into the space between the straight line and the circumference another straight line cannot be interposed; further the angle of the semicircle is greater, and the remaining angle less, than any acute rectilineal angle.