CONCLUSION.—Therefore, from AB, the greater of two straight lines, a part AE has been cut off, equal to C, the less. *Which was to be done.*

PROPOSITION 4.—THEOREM.

If two triangles have two sides of the one equal to two sides of the other, each to each, and have likewise the angles contained by those sides equal to one another, they shall likewise have their bases, or third-sides, equal; and the two triangles shall be equal, and their other angles shall be equal, each to each, viz., those to which the equal sides are opposite.

HYPOTHESIS.—Let ABC, DEF, be two triangles which have—

1. The two sides AB, AC, equal to the two sides DE, DF, each to each;

viz., AB equal to DE, and AC equal to DF.

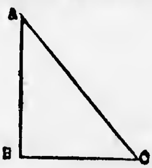
2. And the angle BAC equal to the angle EDF:—then—

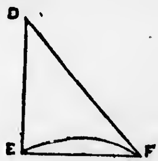
SEQUENCE.—1. The base BC shall be equal to the base EF.

2. The triangle ABC, shall be equal to the triangle DEF.

3. And the other angles to which the equal sides are opposite, shall be equal, each to each.

Viz., The angle ABC to the angle DEF, and the angle ACB to the angle DFE.





DEMONSTRATION.—1. For if the triangle ABC be applied to (*or placed upon*) the triangle DEF.

2. So that the point A may be on D, and the straight line AB on DE.

3. The point B shall coincide with the point E, because AB is equal to DE. (*Hypothesis* 1.)

4. And AB coinciding with DE, AC shall coincide with DF, because the angle BAC is equal to the angle EDF. (*Hypothesis* 2.)

5. Wherefore also the point C shall coincide with the point F, because the straight line AC is equal to DF. (*Hypothesis* 1.)