(*the triangle DFG is an isosceles triangle, and*) the angle DFG is equal to the angle DGF. (*Prop.* 5, *Book* I.)

5. But the angle DGF is greater than the angle EGF. (*Axiom* 9.)

6. Therefore the angle DFG is greater than the angle EGF.

7. Much more then is the angle EFG (*which is greater than DFG, Axiom* 9,) greater than the angle EGF.

8. And because the angle EFG of the triangle EFG, is greater than its angle EGF, and that the greater angle is subtended by the greater side.

9. Therefore the side EG, is greater than the side EF (*Prop.* 19, *Book* I.)

10. But EG was proved to be equal to BC.

11. Therefore BC is greater than EF.

CONCLUSION.—Therefore if two triangles, &c. (*See Enunciation.*) *Which was to be done.*

PROPOSITION 25.—THEOREM.

If two triangles have two sides of the one equal to two sides of the other, each to each, but the base of the one greater than the base of the other, the angle contained by the sides of that which has the greater base, shall be greater than the angle contained by the sides equal to them of the other.

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

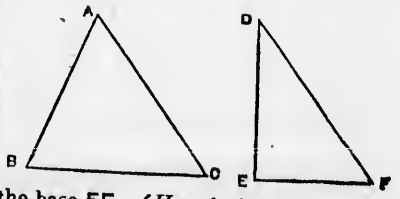
1. The two sides AB, AC, equal to the two sides DE, DF, each to each; viz., AB equal to DE, and AC equal to DF.

2. But the base BC, greater than the base EF.

SEQUENCE.—The angle BAC shall be greater than the angle EDF.

DEMONSTRATION.—1. For if it be not greater, it must be either equal to it or less than it.

2. But the angle BAC is not equal to the angle EDF, because then the base BC would be equal to the base EF. (*Prop.* 4, *Book* I.)



3. But the base BC is not equal to the base EF. (*Hypothesis* 2.)