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theorems of Euclid

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This is a list of theorems contained in Euclid's *The Elements*. At present, the list is incomplete, but as time goes on, more theorems will systematically be added until it is complete. Note that both theorems and constructions are combined together in the elements; for a listing of the constructions, please see <http://planetmath.org/node/9531> their entry.

- I 4 SAS theorem
- I 5 (the pons asinorum) The base angles of an isosceles triangle are equal to each other. Moreover, the angles under the bases are also equal.
- I 6 If two angles of a triangle are equal, then that triangle is isosceles. (converse of the preceding proposition)
- I 7 Given a line segment, it is not possible to construct upon it two distinct triangles which lie upon the same side of the segment whose remaining sides are equal to each other pairwise.
- I 8 SSS theorem