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## conjugate points

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Let  $M$  be a manifold on which a notion of geodesic is defined. (For instance,  $M$  could be a Riemannian manifold,  $M$  could be a manifold with affine connection, or  $M$  could be a Finsler space.)

Two distinct points,  $P$  and  $Q$  of  $M$  are said to be conjugate points if there exist two or more distinct geodesic segments having  $P$  and  $Q$  as endpoints.

A simple example of conjugate points are the north and south poles of a sphere (endowed with the usual metric of constant curvature) — every meridian is a geodesic segment having the poles as endpoints.