In the present work we study expected value of distance between two points, which are chosen randomly and independently in given sets. This problem is often associated with travel distance between two cities of the fixed shape. Cities are mostly considered as circles or rectangles for simplification. The work deals with two separate problems. The first of them is introduced in chapter 2. Points are chosen randomly in two concentric circles. The described method uses the definition of geometric probability. Chapter 3 describes the same problem for two disjoint rectangles. The solution is based on transformation of variables. The limit case in one dimension is then obtained in chapter 4. The work is supplemented by numerous simulations.