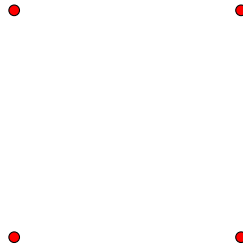
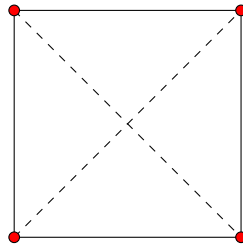


Four Points on a Plane

Consider four points in the plane arranged in a square. How many distinct distances are there between these points?



This picture should help to explain what we mean by 'distinct distances':



The square defines two distinct distances: the diagonals and the sides.

How many other arrangements of four points in a plane are there which have this property? Find them all.