

# Geometric Range Search

Range Tree: Query  
- Algorithm

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1. Determine the canonical subsets of points that satisfy the first query

// there will be  $\mathcal{O}(\log n)$  such canonical sets,  
// each of which is just represented as  
// a node in the  $\boxed{x}$ -tree

2. Find out from each canonical subset  
which points lie within the  $\boxed{y}$ -range

// To do this,  
// for each canonical subset,  
// we access the  $\boxed{y}$ -tree for the corresponding node  
// this will be again a  $\boxed{1D}$  range search (on the  $\boxed{y}$ -range)

