Geometric Intersection

Preliminary

- Integer Element Uniqueness

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❖ IEU   Given a collection of n integers , are they distinct ?

    i.e., are there any duplicates ?

❖ Obviously, as a special case of EU, IEU can't be harder than EU

❖ But can we say that IEU is easier than EU?

❖ In fact, this lower bound of EU holds even for integers

❖ A. C. Yao : IEU requires $\Omega(n\log n)$ time

   Lower bounds for algebraic computation trees with integer inputs

   SIAM J. Computing, 20 (1991), pp. 308-313