1144-05-340 **Carolina Medina Graciano*** (cmedina@ifisica.uaslp.mx) and **Gelasio Salazar**. *On the number of unknot diagrams.*

Let D be a knot diagram, and let $\{D\}$ denote the set of diagrams that can be obtained from D by crossing exchanges. If D has n crossings, then $\{D\}$ has 2^n elements. It is well known that at least one of these 2^n diagrams is a diagram of the unknot, from which it follows that every diagram has finite unknotting number. It is easy to see that this argument can be used to show that actually $\{D\}$ has more than one unknot diagram, but it cannot yield more than $4n$ unknot diagrams. We improve this linear bound to a superpolynomial bound, by showing that at least $2^{\sqrt[3]{n}}$ of the diagrams in $\{D\}$ are diagrams of the unknot. We also show that either all the diagrams in $\{D\}$ are diagrams of the unknot, or there is a diagram in $\{D\}$ that is a diagram of the trefoil knot. (Received August 28, 2018)