

For any threshold we can create a graph where the vertices represent the curves and there is an edge between the vertices if the two curves are tangent. For example,

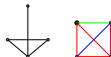


Figure 1: A threshold and its corresponding graph where the vertices represent the curves and there is an edge between the vertices if the two curves are tangent.

Since every curve set must intersect exactly once the resulting graph will be a complete graph on n vertices, K_n^n . The intersection of curves sets is a symmetric relation and so any W point will be a sub-graph of K_n^n . Therefore the decomposition of the complete graph into sub-graphs is the number of W points which has to be larger than three or



Figure 3: Examples of tight thresholds for Conjecture 0.1

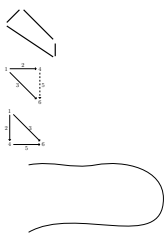
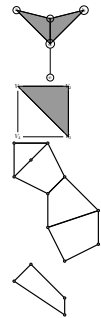
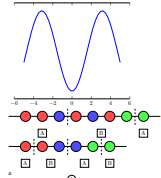
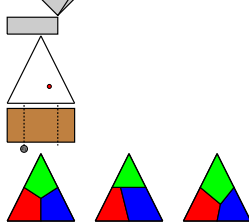
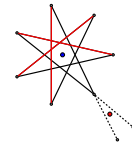


Figure 9: Example graphs made with tiles.

