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Theory of Network Communication

Fall 2002

Assignment 6

Problem 15 (4 points)**:**
Try to come up with an example of a point distribution V so that $GG(V)$, $YG_\Theta(V)$, $SpYG_\Theta(V)$, and $SyYG_\Theta(V)$ all look different, where $\Theta = \pi/3$.

Problem 16 (4 points)**:**
Give an example that shows that the symmetric Yao graph is not a c-spanner for some constant c. (Hint: use two sets of nodes along two lines that are slightly non-parallel to each other to prevent the symmetric case from occurring for many node pairs.) How would the graph look like when using the sparsified Yao graph on this point set?