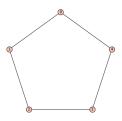
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LARSON—MATH 356—CLASSROOM WORKSHEET 17 Tarjan-Trojanowski Algorithm
Review
• What is the <i>chromatic number</i> $\chi(G)$ of a graph $G$ ?
• What is a bipartite graph?
• Why are trees bipartite?
1. What are the $neighbors$ of a vertex $v$ in a graph $G$ ? What is $Nbhd(v)$ ?
2. If a vertex $v$ is in a maximum independent set $I$ , what vertices $cannot$ be in $I$ ?
2. If a vertex v is in a maximum independent set 1, what vertices cannot se in 1.
3. What is the <b>main idea</b> of the Tarjan-Trojanowski algorithm for finding a maximum independent set in a graph?
4. What is the Tarjan-Trojanowski algorithm for finding a maximum independent set

4. What is the Tarjan-Trojanowski algorithm for finding a maximum independent set in a graph?



5. Use the Tarjan-Trojanowski algorithm to find  $maxset(C_5)$ .

6. What is the **complexity** of the Tarjan-Trojanowski algorithm for finding a maximum independent set in a graph?