Matching
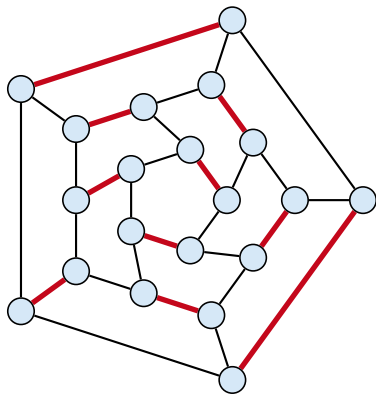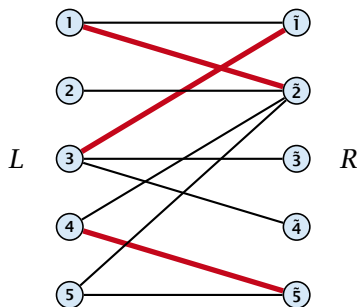
- Input: undirected graph $G = (V, E)$.
- $M \subseteq E$ is a matching if each node appears in at most one edge in M.
- Maximum Matching: find a matching of maximum cardinality

Bipartite Matching

▶ Input: undirected, bipartite graph $G = (L \uplus R, E)$.

▶ $M \subseteq E$ is a matching if each node appears in at most one edge in M.

▶ Maximum Matching: find a matching of maximum cardinality

Bipartite Matching

- ▶ Input: undirected, bipartite graph $G = (L \uplus R, E)$.
- ▶ $M \subseteq E$ is a matching if each node appears in at most one edge in M.
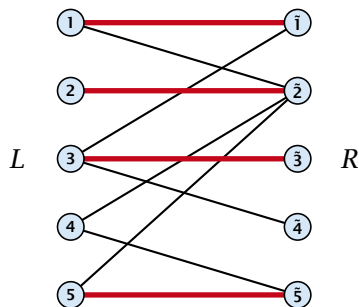- ▶ Maximum Matching: find a matching of maximum cardinality

Bipartite Matching

▶ A matching M is perfect if it is of cardinality $|M| = |V|/2$.

▶ For a bipartite graph $G = (L \uplus R, E)$ this means
$|M| = |L| = |R| = n$.

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