

Flows and cycles in graphs – Exercises 8

1. For a graph G (not necessarily cubic!) prove, that G has a 3-CDC if and only if G has a 4-NZF.
2. Prove the parity lemma directly; that is without using flows.
3. Let G_1, G_2 be cubic bridgeless graphs. Prove that $G_1 \oplus_3 G_2$ is a snark if and only if one of G_1, G_2 is a snark.