${\rm HW}\ 5$

- **1.** C
- **2.** n-1
- 3.
- 1. Connected component: $\{1,4,5,7,8,6\}$
- 2. In-component: $\{3, 5, 6, 8, 7, 4\}$
- 3. Out-component: $\{2,4,5,6,7,8,9,10,11\}$