

Distillation Heuristics Cheat Sheet

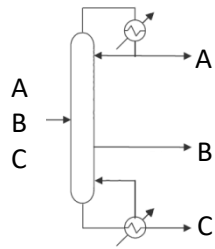
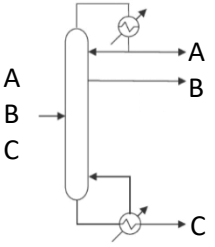
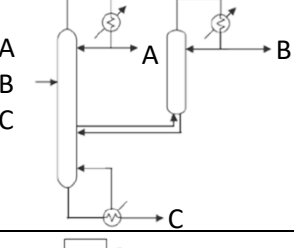
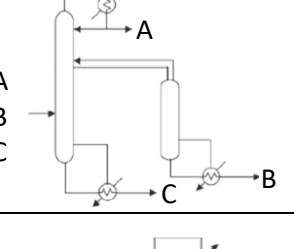
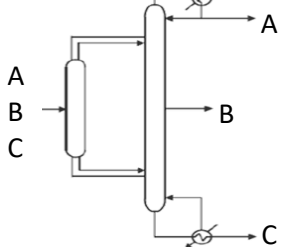
Key Rules

- Remove hazardous, reactive, heat-sensitive, and corrosive components early
- Finished products should not be taken from bottoms of columns if possible
- Light components are normally removed from the top of the first column

Simple Column Sequences

Do the most difficult separation last	Favour the direct sequence
Remove large fraction components first	Separate each feed 50/50

Thermally Coupled Columns

Vapour Side Stream		$B > 50\%$ $C < 5\%$ $\alpha_{BC} \gg \alpha_{AB}$
Liquid Side Stream		$B > 50\%$ $A < 5\%$ $\alpha_{AB} \gg \alpha_{BC}$
Side Rectifier		$B < 30\%$ Composition A > C
Side Stripper		$B < 30\%$ Composition C > A
Pre-fractionator		B is a large fraction of the feed $\alpha_{AB} \approx \alpha_{BC}$