

~~2) Ref~~

Total Reflux

$R=1.9$

$R=1$

Psat-methanol-top	0.9509 atm	1.0089 atm	1.0452 atm
Psat-methanol-bottom	1.5766 atm	1.7443 atm	1.9332 atm
Psat-ethanol-top	0.5342 atm	0.5703 atm	0.5930 atm
Psat-ethanol-bottom	0.9336 atm	1.0437 atm	1.1689 atm
Psat-butanol-top	0.0948 atm	0.1025 atm	0.1074 atm
Psat-butanol-bottom	0.1841 atm	0.2100 atm	0.2401 atm

Relative Volatility :-

$\alpha_{\text{methanol-ethanol-top}}$	1.7802	1.7691	1.7625
$\alpha_{\text{methanol-ethanol-bottom}}$	1.6887	1.6712	1.6538
$\alpha_{\text{methanol-butanol-top}}$	10.0329	9.8447	9.7548
$\alpha_{\text{methanol-butanol-bottom}}$	8.3644	8.3053	8.0522
$\alpha_{\text{ethanol-butanol-top}}$	5.6359	5.5649	5.5233
$\alpha_{\text{ethanol-butanol-bottom}}$	5.0717	4.9895	4.8689