

Task - Split Ratio Ex. Solved

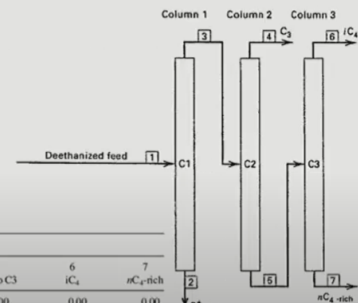
- Watch how other instructors use this example!
 - <https://youtu.be/1LfyZE1YWwM?t=3920>
 - 1:05:20

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Example

E3. Calculate the split fraction, SF , split ratio, SR , and the recovery of C_3H_8 .



| Component | 1 Feed to C1 | 2 C ₂ -rich | 3 Feed to C2 | 4 C ₃ | 5 Feed to C3 | 6 iC ₄ | 7 nC ₄ -rich |
|---------------------------------|-----------------|---------------------------|-----------------|---------------------|-----------------|----------------------|----------------------------|
| C ₂ H ₆ | 0.60 | 0.00 | 0.60 | 0.60 | 0.00 | 0.00 | 0.00 |
| C ₃ H ₈ | 57.00 | 0.00 | 57.00 | 54.80 | 2.20 | 2.20 | 0.00 |
| iC ₄ H ₁₀ | 171.80 | 0.10 | 171.70 | 0.60 | 171.10 | 162.50 | 8.60 |
| nC ₄ H ₁₀ | 227.30 | 0.70 | 226.60 | 0.00 | 226.60 | 10.80 | 215.80 |
| iC ₅ H ₁₂ | 40.00 | 11.90 | 28.10 | 0.00 | 28.10 | 0.00 | 28.10 |
| nC ₅ H ₁₂ | 33.60 | 16.10 | 17.50 | 0.00 | 17.50 | 0.00 | 17.50 |
| C ₆ H ₁₄ | 205.20 | 205.20 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total | 735.00 | 234.10 | 501.50 | 56.00 | 445.50 | 175.50 | 270.00 |

