

# Quiz 5: Distillation

1. The distillation column's energy consumption \_\_\_\_\_ with the reflux ratio
  - A increases
  - B decreases
  - C does not change
  
2. Consider the final T1 specifications and design specs from the last class. For a **methanol purity** of 98 %, the new values of D/F and RR are:
  - A [0.87-0.91] and [0.19-0.23]
  - B [0.85-0.89] and [0.62-0.66]
  - C [0.76-0.80] and [0.18-0.22]
  - D None of the options
  
3. Consider the final T1 specifications and design specs from the last class. Do a sensitivity analysis on the effect of the n° of stages on T1 energy consumption.
  - A The energy consumption increases with the n° stages
  - B The energy consumption decreases with the n° stages
  - C There is no effect on the energy consumption
  
4. Stage 1 of the RadFrac block is the condenser.
  - T True
  - F False
  
5. Consider the final T1 specifications and design specs from the last class. For a **methanol recovery of 92%**, the energy consumption in the reboiler is:
  - A between 1700 and 1750 kW
  - B between -1650 and -1600 kW
  - C between -1700 and -1650 kW
  - D between 1750 and 1800 kW
  - E None of the options